

CITY OF



MANCHESTER

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REPORT

ON THE

Health of the City of Manchester

FOR

1950

BY

C. METCALFE BROWN,

M.D., D.P.H., BARRISTER-AT-LAW,

MEDICAL OFFICER OF HEALTH.



CITY OF MANCHESTER.

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HEALTH DEPARTMENT,
TOWN HALL,
MANCHESTER, 2,

29th June, 1951.

MY LORD MAYOR, ALDERMEN AND MEMBERS OF THE CITY COUNCIL.

I have pleasure in presenting my report on the health of the City for the year 1950 ; the report has been compiled on the lines laid down by the Ministry of Health.

The Registrar General's estimate of the resident population at the mid-year 1950 was 704,500, an increase of 4,900 on the figure for 1949. The population allocation to the 36 Wards of the City is given on page 15. This allocation is only approximate and definite figures will not be available until the result of the Census returns taken in 1951 is known.

The number of persons married in Manchester during the year was 13,418, corresponding to a marriage rate of 19.05, as compared with 14,352 and a rate of 20.51 for the previous year, and an average of 14,885 and 22.12 for the previous five years.

Live births registered during the year numbered 12,436 ; of these 6,339 were males and 6,097 females. Compared with the previous year, this represents a decrease of 427 males and 266 females, a total decrease of 693 live births.

The birth rate was 17.65, against a rate of 18.77 for 1949. The birth rate for England and Wales was 15.8 per 1,000 of the population.

The excess of births over deaths, or what is generally spoken of as the " natural increase of the population " was 3,437, as compared with 4,093 in 1949 and an average of 2,888 for the previous 10 years. The chart opposite page 19 shows the marriage and birth rates for the years 1871 to 1950.

Of the 12,436 live births registered, 11,523 or 92.66 per cent. were legitimate and 913 or 7.34 per cent. were illegitimate. The ratio of illegitimate to legitimate births was 1 to 13, as compared with 1 to 14 for the previous year.

The number of stillbirths registered during the year was 333, and the stillbirth rate was 26.08 per 1,000 live and stillbirths, which is 1.49 higher than 1949. The ratio of registered still to registered live births was 1 to 37, compared with 1 to 40 for 1949.

The number of deaths and the crude death rate were 8,999 and 12.77 respectively per 1,000 of the population, as compared with the corresponding figures for 1949 of 9,036 and 12.91 respectively. The death rate for England and Wales was 11.6.

The four main causes of death were heart disease, cancer, non-tuberculous respiratory disease and tuberculosis. The deaths due to heart disease increased from 2,206 (or 3.15 per 1,000) in 1949 to 2,585 (or 3.68 per 1,000) in 1950. The number of deaths due to cancer was 1,398 (or 2.00 per 1,000) in 1949, as against 1,405 (or 1.99 per 1,000) in 1950. The deaths from non-tuberculous respiratory diseases decreased from 1,466 (or 2.10 per 1,000) in 1949 to 1,312 (or 1.86 per 1,000) in 1950.

There was a marked reduction in the number of notifications of both pulmonary and non-pulmonary tuberculosis. The percentage reduction on 1930 figures is 41.6 for pulmonary, 70.4 for non-pulmonary and on all forms of tuberculosis 49.1.

During the past five years, however, there has been an increase in the number of cases and deaths from pulmonary tuberculosis in ages 0-4 years, and the reason for this can only be the failure to isolate quickly enough open cases of tuberculosis in sanatoria. The result of this is that young children, highly susceptible to tuberculosis, have been exposed to more intensive and more frequent infection than during the war years. It is gratifying, however, to report that, as a result of improvements carried out by several hospital management committees, not only has the number of patients awaiting sanatorium admission decreased, but there has also been an appreciable reduction in waiting periods for admission to sanatoria. If this continues there is every reason to look for an early decline in both incidence and deaths.

So far as non-pulmonary tuberculosis is concerned, the trend is downwards and is in accordance with expectations. Infection in non-pulmonary tuberculosis is usually the result of the consumption of contaminated milk, and with improved clean milk supplies it is to be anticipated that both incidence and death rates from non-pulmonary tuberculosis will continue to fall.

Infant mortality once again set a new low record. There were 471 deaths under one year of age, which gave a rate of 37.87 per 1,000 live births. This is the lowest rate ever recorded in the City. More than half of these deaths occurred in the first four weeks of life and are largely due to congenital malformations and immaturity. The number of deaths and the rate for the previous year were 502 and 38.24 respectively. The rate for England and Wales in 1950 was 29.8.

The number of illegitimate deaths under one year of age was 38 and gives a rate of 41.62 per 1,000 illegitimately born. The rate for 1949 was 46.28.

The maternal mortality rate for the City was 0.78 per 1,000 live and stillbirths. This is the lowest rate ever recorded in Manchester and is 0.08 lower than that for England and Wales. The average rate for the City for the past five years is 1.23.

During the year, 17,744 cases of infectious diseases (excluding tuberculosis) were notified in the City. This is an increase of 5,066 on the figure for the previous year. A summary of the cases notified will be found on page 30a.

There was an increase in the number of notifications of measles, whooping cough, poliomyelitis and dysentery, whilst the number of diphtheria cases remained the same as in 1949. Notification of the other infectious diseases showed a decrease.

No case of smallpox was notified in the City during 1950.

Measles notifications numbered 9,798 and there were 9 deaths. Corresponding figures for 1949 were 6,485 and 7 respectively.

Notifications of acute poliomyelitis numbered 160; the diagnosis was not confirmed in 62 of these. Of the 98 confirmed cases, 5 proved fatal. Particulars of cases notified are given on pages 40 to 42.

566 cases of dysentery came to the notice of the department as compared with 30 for 1949. There were, however, no deaths. Most of the cases occurred in young children, and the disease was usually of a mild type, associated with the presence of Sonne bacilli. The increase in cases of Sonne dysentery is general throughout the country.

Only 22 true cases of diphtheria were notified during the year; this was the same number notified in 1949. There were 3 deaths from the disease, one occurring in a child of 12 years of age who had been immunized.

Immunization against diphtheria is still carried out intensively at the Child Welfare Centres, School Clinics and Day Nurseries. The Mobile Unit continues to carry on its useful work of visiting districts not in close proximity to Child Welfare Centres and in addition keeps in touch with those areas where the percentage of immunized children under 5 years of age is low. The Unit was responsible for the complete immunization of 2,856 children who probably would not otherwise have received treatment. At the present time 70 per cent. of Manchester children under 15 years of age have been immunized, the percentage in age groups being 61 in 0-4 years and 77 in 5-14 years.

The number of notifications of whooping cough was 4,187. This number is 1,438 in excess of the figure for 1949, and is the highest number of cases notified since 1941. The number of deaths was 19, as against 29 for the previous year.

During 1950, children who had taken part in five previous whooping cough vaccine trials were still being visited monthly by a trained investigating staff to collect information required by the Medical Research Council. Towards the end of 1950 sufficient information had been obtained in three of these trials; consequently they were closed, and the monthly visiting ceased. With regard to the remaining two trials, which entail 4,086 children, the routine monthly visits still continue.

As a result of these trials, the Medical Research Council have found a vaccine which has proved more efficacious than other vaccines used in whooping cough immunization, and the Medical Research Council has now offered £5,000 worth of this vaccine to the Health Department for the immunization of children between the ages of 6 months and 4 years. 20,000 Manchester children in this age group will be inoculated with the vaccine in 1951. Three injections will be given at monthly intervals and information about any reaction or subsequent whooping cough infection in the children treated will continue to be compiled. The result of these mass inoculations may well be that in the not-too-distant future there will be a fall in the incidence of whooping cough comparable with the decline of diphtheria.

In the field of mental health an enquiry was carried out into the incidence of mental deficiency and mental illness for each Ward of the City. The results of this survey are given in tabular form on pages 118a and 119 and they show that incidence rates are high in the older and more populated districts. For mental deficiency there was a recorded incidence of 3.24 per 1,000 of the population and an estimate of mental illness based on hospital admissions of voluntary, temporary and certified patients gave an incidence of 3.41 per 1,000 of the population.

The satisfactory operation of the Mental Health Service continued to be difficult owing to limitations of hospital accommodation and the lack of qualified psychiatric social workers; further progress was made, however, with the domiciliary care and training of the mentally defective and another Occupation Centre was opened in August, 1950.

In general, the report for 1950 shows clear evidence of substantial progress in relation to the health of the City and, indeed, the improvement in the last 10 years has been quite remarkable.

I have again the greatest pleasure in expressing my warm thanks to the Chairman and Members of the Health Committee and to my colleagues in the Health Department for their continued support, encouragement and very great help.

I have the honour to be,

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

CHARLES METCALFE BROWN,
Medical Officer of Health.

HEALTH COMMITTEE

1951-52.

CHAIRMAN—Councillor Mrs. Eveline Hill, M.P., J.P.

DEPUTY CHAIRMAN—Councillor W. Chadwick, M.B., CH.B.

THE LORD MAYOR—Alderman Col. S. P. DAWSON, O.B.E., M.M., T.D., J.P.

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„	Alfred James, J.P.	„	Mary Knight
„	Hugh Lee, J.P.	„	T. M. Larrad, J.P.
„	W. Somerville, J.P.	„	A. Littlemore
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„	Nellie Beer, J.P.	„	R. E. Thomas, J.P.
„	James Bowes	„	Mabel S. Whittaker, J.P.
„	P. Buckley		

HEALTH OFFICERS.

(A) Medical.

- C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law Medical Officer of Health.
- A. M. M. Grierson, O.B.E., M.D., D.P.H.,
F.R.S.E. Deputy Medical Officer of Health.
- L. R. L. Edwards, M.D., M.R.C.S., L.R.C.P.,
D.P.H. Senior Assistant Medical Officer of
Health.
- Winifred A. Kane, M.R.C.S., L.R.C.P.,
D.P.H. Senior Assistant Medical Officer of
Health (Maternity and Child Wel-
fare).
- B. J. Griffiths, B.Sc., M.R.C.S., L.R.C.P.,
D.P.H. Assistant Medical Officer of Health.
- Thomas M. Edward, M.B., CH.B. .. Assistant Medical Officer of Health
(Diphtheria Immunization.)
- Andrew V. Magee, M.B., CH.B. Assistant Medical Officer of Health—
Part-time (Whooping Cough
Investigation.)
- W. Lee, M.B., CH.B. Tuberculosis Officer —Part-time.

(B) Other Professional.

- Alfred N. Leather, B.Sc., F.R.I.C... .. Public Analyst.
- J. Lawson, M.R.SAN.I. Chief Sanitary Inspector.
- Winifred M. L. Selmes, S.R.N., S.C.M.,
D.N. Nursing Organiser.

GENERAL STATISTICS

The following are general statistics for the year 1950 :—

Area of the City in Acres	.. .. .	27,255
Census population for the year 1931	{ Males .. 360,976 Females 405,402 }	.. .. . 766,378
Registrar General's estimated population for the year 1950.		
	{ Males .. 331,827 Females 372,673 }	.. .. 704,500
Comparability factor	{ Births 0.95 Deaths 1.11 }	
Rateable value (1st April, 1950)	.. .. .	£6,481,384
Sum represented by a penny rate (estimated)	.. .. .	£25,400
No. of persons per acre	.. .. .	26
Persons married per 1,000 of population	.. .. .	19.05

	Total	Males	Females	
Live births	{ Legitimate .. 11,523 Illegitimate .. 913 }	5,884	5,639	12,436
Live-birth rate per 1,000 of population	.. .. .			17.65
Live-birth rate as adjusted by factor	.. .. .			16.77
Still-births	{ Males .. 185 Females 148 }			333
Still-births rate per 1,000 total (live and still) births	.. .. .			26.08
Deaths	{ Males .. 4,591 Females 4,408 }			8,999
Death rate per 1,000 of the estimated resident population	{ Males .. 13.84 Females 11.83 }			12.77
Death rate as adjusted by factor	.. .. .			14.17
Excess of registered births over deaths	.. .. .			3,437
Percentage of mortality occurring in public institutions	.. .. .			42.19

Deaths from puerperal causes:—

	Deaths	Rate per 1,000 total (live and still) births	
Puerperal and post-abortive sepsis	1	0.08	} .. 0.78
Other puerperal causes	9	0.70	
Total	10		

Death Rate of Infants under one year of age:—

All infants per 1,000 live births	.. .. .	37.87
Legitimate infants per 1,000 legitimate live births	.. .. .	37.58
Illegitimate infants per 1,000 illegitimate live births	.. .. .	41.62

No. of Occupied Structurally Separate Dwellings at the Census in April, 1931	.. .. .	177,430
No. of Inhabited Houses according to Rate Books	.. .. .	201,900
No. of persons per occupied Structurally Separate Dwelling (Census 1931)	.. .. .	4.32
No. of persons per house, 1950 (based on 203,723 houses connected with the water supply within the City)	.. .. .	3.46
No. of new houses erected during 1950:—		
By Local Authority	.. .. .	2,060
By other bodies or persons	.. .. .	269
		2,329

The City of Manchester is one of the largest centres in the industrial north, and almost two million people reside in the forty adjacent townships. Road and rail communications, and the Port of Manchester, have combined to retain the City's important position in the world of industry and commerce and its business links with other lands.

Comprehensive housing schemes are gradually causing the poorer centralised inhabited sites to disappear, and to the north and south of the City there are now large self-contained housing estates, which have been quoted as examples of the best modern methods.

The surface level of the City varies from about 80 feet in the south to 300 feet in the north, and it is intersected by the five rivers, Mersey, Medlock, Irwell, Irk, and Tib. The latter, a small stream, has been culverted.

The City is important as a Hospital Centre and Medical School. Its University claims some prominence in the realm of research, especially in the field of Physics. Nearly 60,000 persons are employed in the Engineering and Clothing trades in the City, which is an important focal point in the production of cotton, steel, coal, rubber, and chemicals.

METEOROLOGY, 1950.

Means of the Monthly Readings from Whitworth Observatory, Manchester.

	Wet Bulb	Dry Bulb	Mean Maximum Temperature	Mean Minimum Temperature	Mean Temperature	Total Rainfall (inches)	Total Number of Wet Days	Total Hours of Sunshine	Number of Days on which Fog was noted at 09.00 G.M.T.
January	39.0	40.6	44.7	37.2	40.9	1.80	9	25.11	15
February	39.4	41.6	47.4	36.5	41.9	4.03	17	44.80	6
March	43.2	45.9	52.9	36.8	44.9	1.82	14	96.10	5
April	42.3	45.4	52.3	39.9	46.1	3.12	21	123.90	—
May	48.7	53.3	60.6	46.5	53.6	1.46	12	168.64	1
June	56.5	61.9	70.4	53.9	62.1	3.04	13	205.50	—
July	56.5	61.6	69.0	54.9	61.9	3.14	15	165.23	—
August	56.8	61.6	68.6	59.3	63.9	2.26	12	145.70	—
September	52.5	55.1	60.8	4.6	54.7	4.55	24	90.60	—
October	47.0	49.8	55.9	44.9	50.4	3.06	15	88.35	3
November	41.0	42.8	46.7	38.3	42.5	5.01	22	22.80	7
December	33.1	34.4	38.2	29.8	34.0	3.32	17	9.30	6
YEAR ..	46.3	49.5	55.6	43.9	49.7	36.61	191	1186.03	43
Means						Totals			

The Meteorological Station situated at the Corporation Cleansing Yard, 299, Oldham Road, which had been in operation since 1892, was dismantled in June, 1938. This was necessary on account of further accommodation being required for building purposes of the Cleansing Committee. After communication with the Air Ministry they considered that the records taken at the Meteorological Station connected with the Manchester University in Whitworth Park were sufficient for their purpose.

Birth Rate, Death Rate, and Analysis of Mortality, 1950, in England and Wales,
Grouped Areas, London and Manchester.

	BIRTH RATE PER 1,000 TOTAL POPULATION		ANNUAL DEATH RATE PER 1,000 POPULATION									RATE PER 1,000 LIVE BIRTHS	
	Live Births	Still Births	All Causes	Typhoid and Paratyphoid Fever	Whooping Cough	Diphtheria	Tuberculosis	Influenza	Smallpox	Acute Poliomyelitis and Polioencephalitis	Pneumonia	Diarrhoea and Enteritis (under two years)	Total Deaths (under one year)
England and Wales	15.8	0.37	11.6	0.00	0.01	0.00	0.36	0.10	—	0.02	0.46	1.9	29.8
126 County Boroughs and Great Towns, including London..	17.6	0.45	12.3	0.00	0.01	0.00	0.42	0.09	—	0.02	0.49	2.2	33.8
148 Smaller Towns, estimated Resident Population 25,000 to 50,000 at 1931 Census..	16.7	0.38	11.6	0.00	0.01	0.00	0.33	0.10	—	0.02	0.45	1.6	29.4
London Administrative County	17.8	0.36	11.8	0.00	0.01	0.00	0.39	0.07	—	0.01	0.48	1.0	26.3
Manchester	17.7	0.47	12.8	0.00	0.03	0.00	0.65	0.09	—	0.01	0.47	3.0	37.9

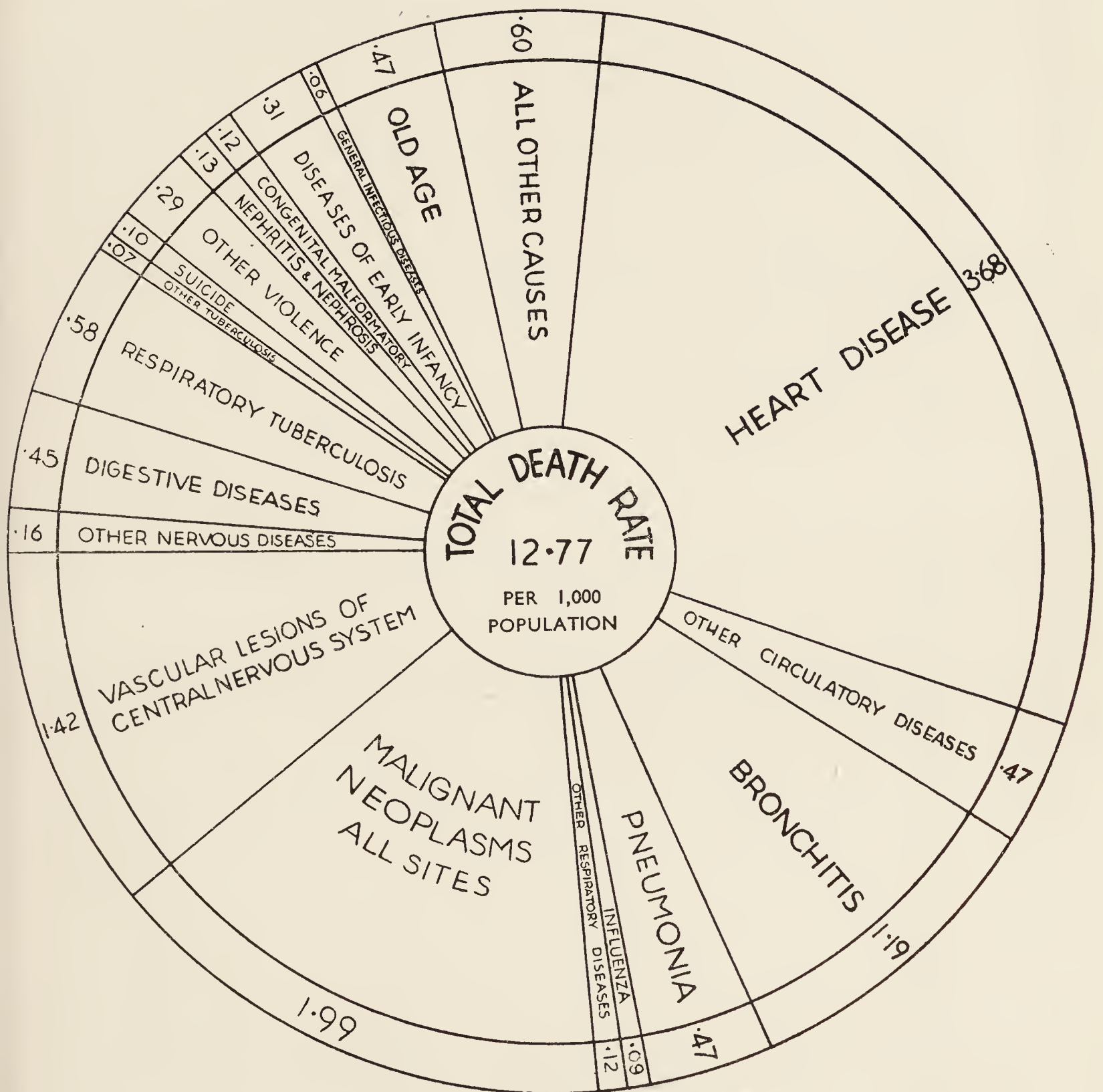
A dash (—) signifies that there were no deaths.

CAUSES OF DEATH, 1950.
Registrar General's Return.
Manchester.

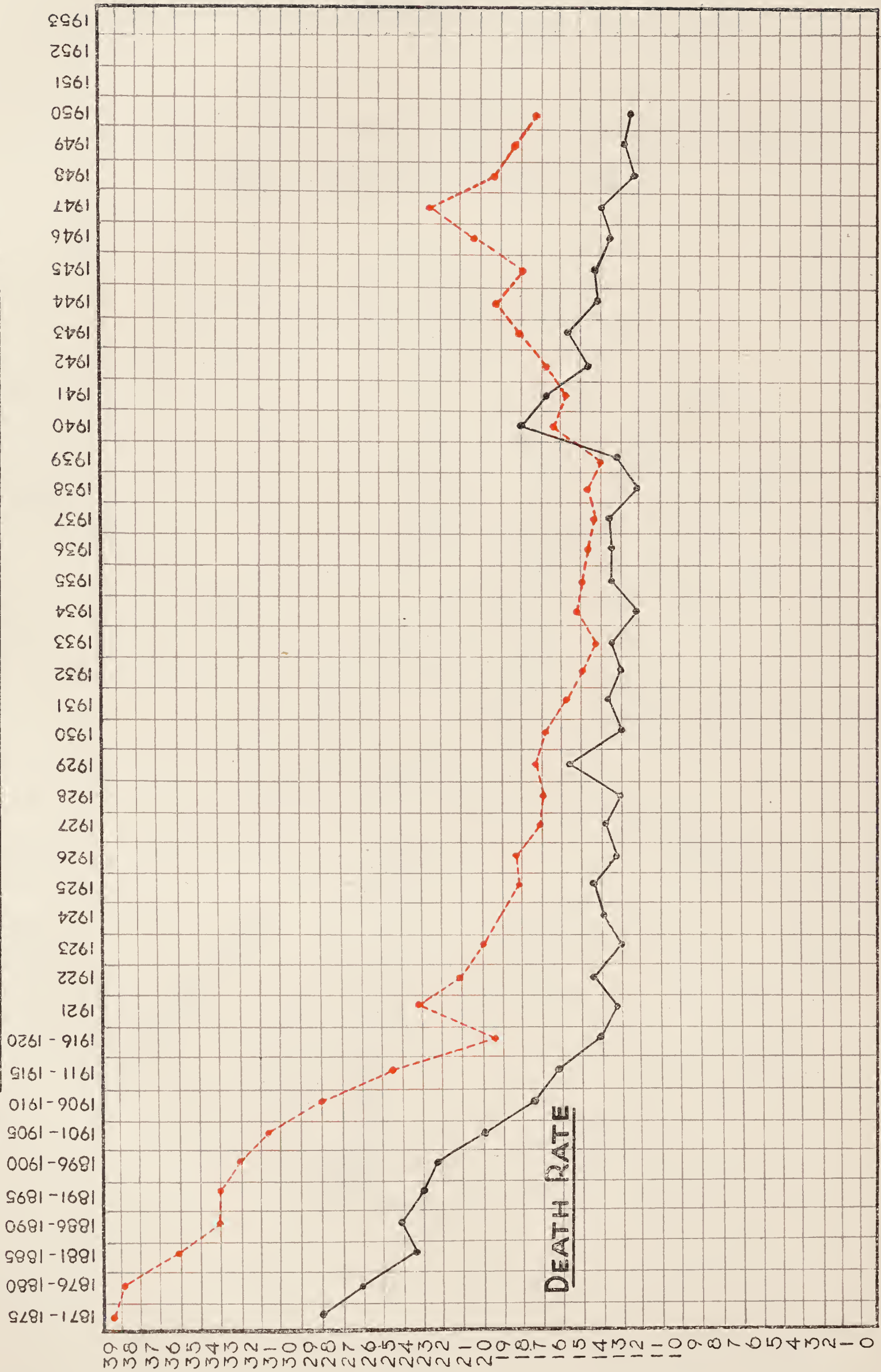
CAUSES OF DEATH	AGES AT DEATH										
	Male	Female	All Ages	Under 1 Year	1 Year and Under 5 Years	5 Years and Under 15 Years	15 Years and under 25 Years	25 Years and Under 45 Years	45 Years and Under 65 Years	65 Years and Under 75 Years	75 Years and Over
Tuberculosis, Respiratory	255	156	411	—	3	2	50	160	159	32	5
,, Other	25	22	47	2	7	2	9	14	8	5	—
Syphilitic Disease	21	9	30	1	—	—	—	3	13	10	3
Diphtheria	3	—	3	—	1	1	—	—	1	—	—
Whooping Cough	6	13	19	14	3	1	—	—	1	—	—
Meningococcal Infections	5	—	5	2	3	—	—	—	—	—	—
Acute Poliomyelitis	2	3	5	—	2	2	—	1	—	—	—
Measles	6	3	9	5	3	1	—	—	—	—	—
Other Infective and Parasitic Diseases	11	14	25	—	—	—	2	12	8	1	2
Malignant Neoplasm, Stomach	155	94	249	—	—	—	—	16	88	100	45
,, ,,, Lung, Bronchus	215	39	254	—	—	—	—	18	136	82	18
,, ,,, Breast	3	129	132	—	—	—	—	22	56	30	24
,, ,,, Uterus	—	76	76	—	—	—	—	10	36	21	9
Other Malignant and Lymphatic Neoplasms	363	301	664	—	3	5	2	40	245	207	162
Leukaemia, Aleukaemia	15	15	30	2	—	5	2	6	8	5	2
Diabetes	12	44	56	—	—	—	—	3	15	29	9
Vascular Lesions of Nervous System ..	443	558	1001	—	1	1	5	18	233	373	370
Coronary Disease, Angina	490	275	765	—	—	—	—	27	275	311	152
Hypertension with Heart Disease ..	112	139	251	—	—	—	—	4	77	98	72
Other Heart Disease	661	908	1569	—	—	4	12	60	285	438	770
Other Circulatory Disease	147	181	328	1	1	1	—	9	62	94	160
Influenza	27	34	61	—	—	—	2	2	22	23	12
Pneumonia	176	155	331	56	16	1	4	18	75	80	81
Bronchitis	506	331	837	16	5	—	—	16	241	308	251
Other Diseases of Respiratory System ..	53	30	83	6	1	—	3	12	34	11	16
Ulcer of Stomach and Duodenum ..	57	29	86	—	—	—	—	9	40	23	14
Gastritis, Enteritis and Diarrhoea ..	37	33	70	37	1	—	—	5	5	12	10
Nephritis and Nephrosis	42	49	91	1	—	4	1	16	27	29	13
Hyperplasia of Prostate	48	—	48	—	—	—	—	—	2	20	26
Pregnancy, Childbirth, Abortion ..	—	10	10	—	—	—	2	8	—	—	—
Congenital Malformations	43	43	86	63	6	1	3	5	4	4	—
Other Defined and Ill-defined Diseases ..	483	609	1092	257	4	9	14	64	192	177	375
Motor Vehicle Accidents	55	25	80	—	9	9	8	10	20	13	11
All Other Accidents	69	54	123	8	7	10	10	17	23	16	32
Suicide	41	26	67	—	—	—	4	15	31	12	5
Homicide and Operations of War ..	4	1	5	—	1	—	—	—	4	—	—
TOTALS ..	4591	4408	8999	471	77	59	133	620	2426	2564	2649

A table showing the mortality rates due to various causes, etc., from 1911 onwards appears at the end of the report.

CITY OF MANCHESTER

Proportion of Deaths from Principal Causes
to Total Deaths—1950

CITY OF MANCHESTER BIRTH & DEATH RATES PER 1000 OF THE POPULATION

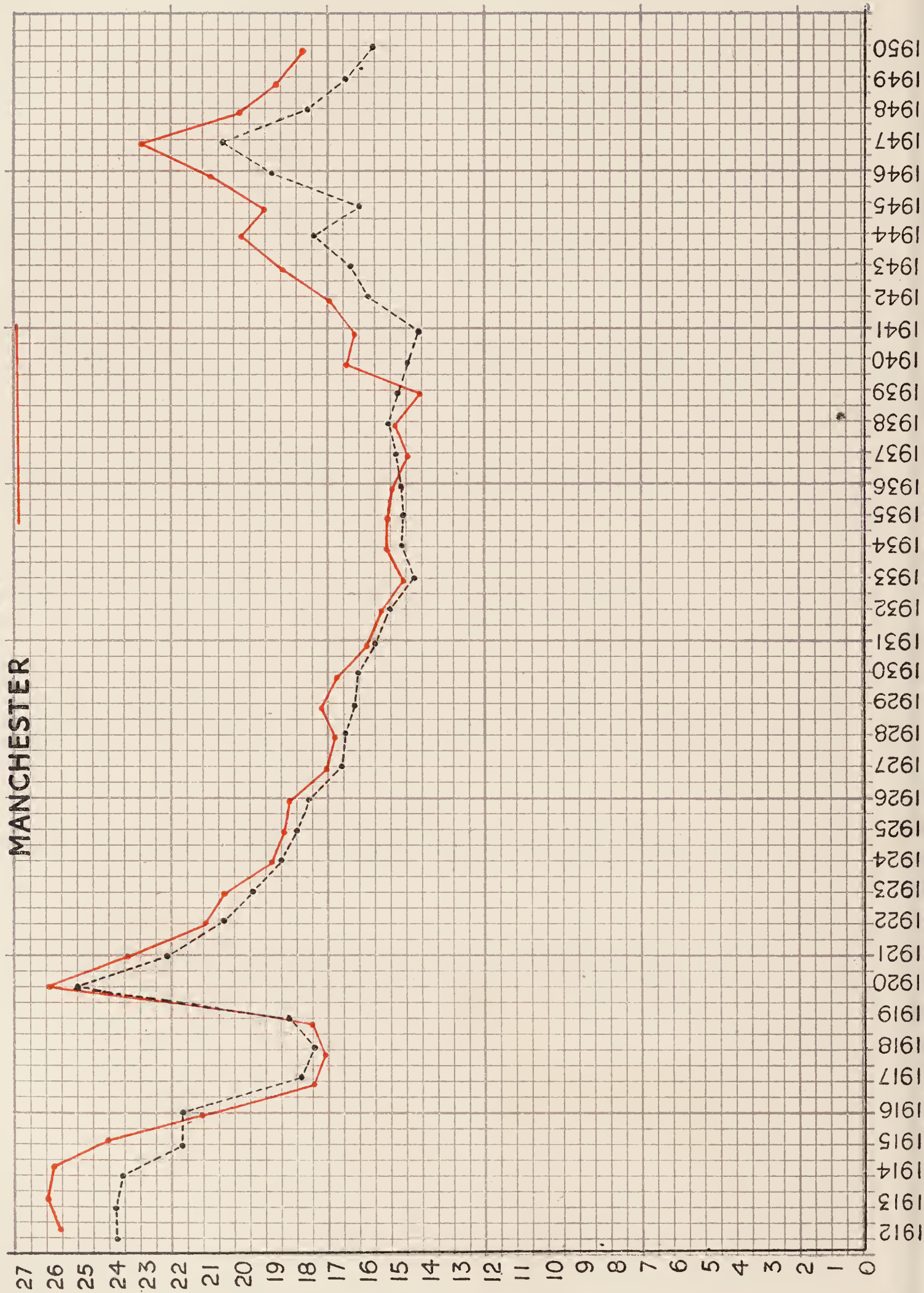


WARDS	Estimated populations	Area in acres	Persons per acre	Births (Live)		Deaths		Natural rate of Increase	Deaths under 1 year per 1,000 live births
				Total	Rate per 1,000 pop.	Total	Rate per 1,000 pop.		
CITY OF MANCHESTER..	704500	27255	25.85	12436	17.65	8999	12.77	+ 4.88	37.87
All Saints'	13195	300	43.98	349	26.45	197	14.93	+ 11.52	31.52
Ardwick ..	18388	426	43.16	414	22.51	245	13.32	+ 9.19	38.65
Beswick ..	22058	254	86.84	404	18.32	278	12.60	+ 5.72	51.98
Blackley ..	28805	1158	24.87	533	18.50	345	11.98	+ 6.52	31.89
Bradford ..	26030	790	32.94	433	16.63	293	11.26	+ 5.37	50.81
Cheetham..	22632	555	40.78	374	16.53	279	12.33	+ 4.20	42.78
Chorlton-cum-Hardy	42717	1666	25.64	487	11.40	513	12.01	— 0.61	36.96
Collegiate Church ..	8343	446	18.71	205	24.57	130	15.58	+ 8.99	19.51
Collyhurst..	12630	232	54.44	382	30.25	176	13.94	+ 16.31	44.50
Crumpsall..	24917	2203	11.31	390	15.65	284	11.40	+ 4.25	41.03
Didsbury ..	31720	2354	13.47	390	12.30	497	15.67	— 3.37	33.33
Exchange..	87	61	1.43	1	11.49	1	11.49	—	—
Gorton North ..	22367	604	37.03	286	12.79	248	11.09	+ 1.70	31.47
Gorton South ..	26952	628	42.92	362	13.43	336	12.47	+ 0.96	44.20
Harpurhey ..	18900	344	54.94	342	18.10	226	11.96	+ 6.14	38.01
Levenshulme ..	20135	606	33.23	212	10.53	244	12.12	— 1.59	23.58
Longsight ..	26140	593	44.08	328	12.55	321	12.28	+ 0.27	15.24
Medlock Street..	15774	212	74.41	416	26.37	211	13.38	+ 12.99	36.06
Miles Platting ..	14939	313	47.73	321	21.49	184	12.32	+ 9.17	34.27
Moston ..	29912	1231	24.30	429	14.34	337	11.27	+ 3.07	34.96
Moss Side East ..	17092	241	70.92	411	24.05	234	13.69	+ 10.36	46.23
Moss Side West ..	19750	267	73.97	424	21.47	295	14.94	+ 6.53	30.66
New Cross ..	12987	303	42.86	305	23.49	219	16.86	+ 6.63	26.23
Newton Heath ..	21323	1005	21.22	352	16.51	316	14.82	+ 1.69	42.61
Openshaw ..	18894	482	39.20	342	18.10	246	13.02	+ 5.08	55.56
Oxford ..	197	167	1.18	7	35.53	16	81.22	— 45.69	—
Rusholme ..	20600	806	25.56	261	12.67	287	13.93	— 1.26	30.65
St. Ann's..	18	55	0.33	—	—	4	—	—	—
St. Clement's ..	773	181	4.27	11	14.23	13	14.23	—	—
St. George's ..	16539	266	62.18	401	24.25	210	12.70	+ 11.55	42.39
St. John's ..	1573	199	7.90	32	20.34	28	17.80	+ 2.54	31.25
St. Luke's ..	20595	316	65.17	499	24.23	315	15.29	+ 8.94	54.11
St. Mark's ..	19849	340	58.38	367	18.49	221	11.13	+ 7.36	40.87
St. Michael's ..	11813	243	48.61	300	25.40	170	14.39	+ 11.01	63.33
Withington ..	50400	1841	27.38	556	11.03	605	12.00	— 0.97	35.97
Wythenshawe ..	45456	5567	8.17	1110	24.42	475	10.45	+ 13.97	27.03

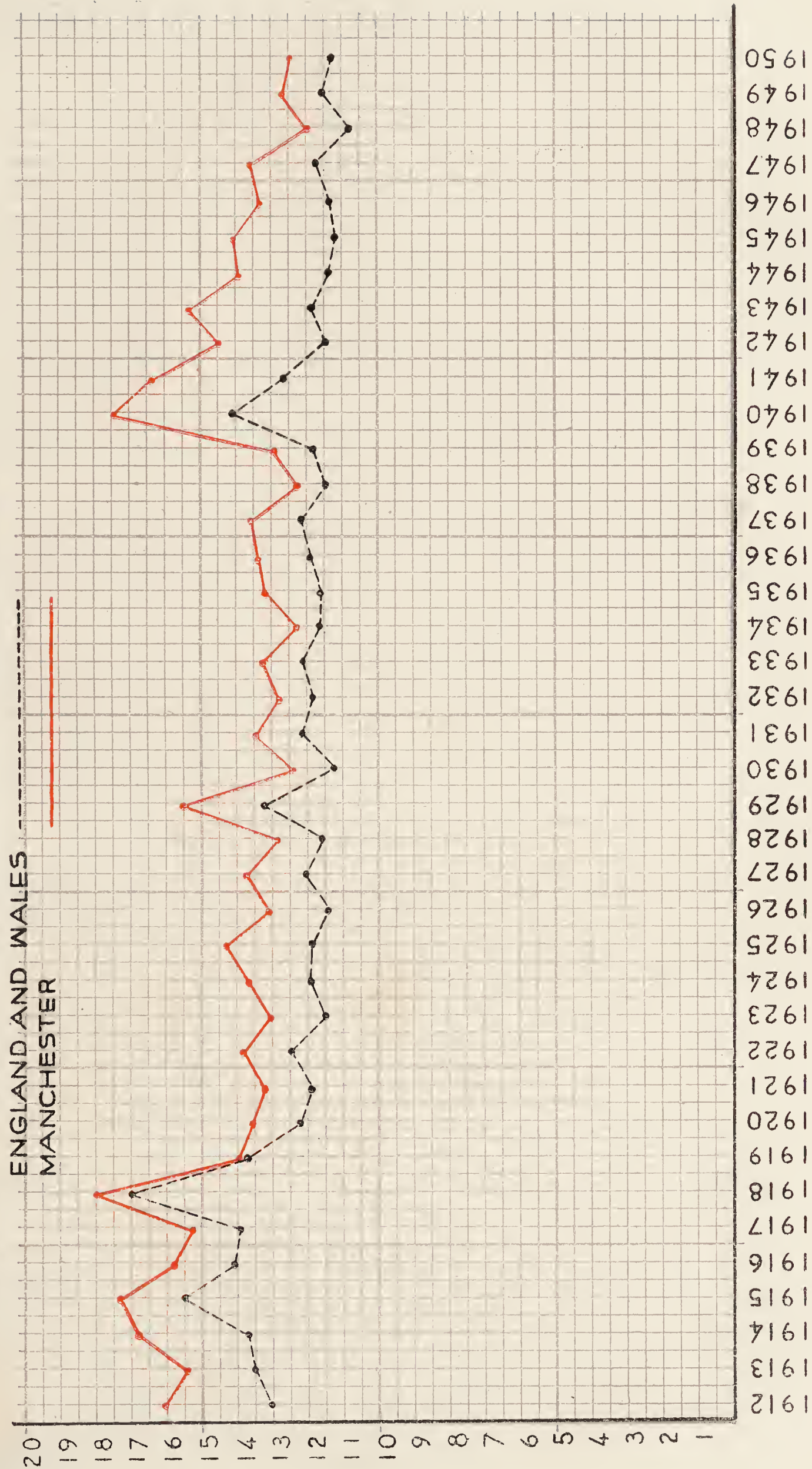
BIRTH RATES PER 1,000 OF THE POPULATION

ENGLAND AND WALES

MANCHESTER



DEATH RATES PER 1000 OF THE POPULATION



Manchester—Estimated Populations. Annual Rates of Marriages, Births, and Deaths (a) from All Causes, (b) from Specified Causes, and (c) Infant Mortality; also the Percentages to Total Deaths of Inquest Cases and of Deaths in Public Institutions; also Quinquennial Averages, 1871—1950.

Year	Estimated Population (Mean)	Marriage Rate per 1,000 persons living	Annual Rates per 1,000 persons living										Percentage to Total Deaths		Infant Mortality	Year		
			Births	Deaths (all causes)	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus Fever	Typhoid and Paratyphoid Fever	Simple Continued Fever	Diarrhoea 4 Weeks to 2 Years	Violence			Inquest Cases	Deaths in Public Institutions
1871-1875	477,344	24.6	38.9	28.3	0.26	0.64	1.08	0.08	0.78	0.14	0.43	0.21	1.95	0.94	7.2	13.4	198	.. 1871-1875
1876-1880	509,802	18.6	38.7	26.2	0.24	0.53	1.07	0.13	0.84	0.08	0.29	0.11	1.26	0.89	7.5	14.3	172	.. 1876-1880
1881-1885	542,746	17.9	35.1	23.6	0.04	0.71	0.48	0.10	0.68	0.05	0.20	0.03	0.99	0.72	7.0	15.9	175	.. 1881-1885
1886-1890	575,630	16.6	33.4	24.6	0.02	0.83	0.50	0.32	0.54	0.02	0.30	0.01	1.08	0.78	6.9	17.7	183	.. 1886-1890
1891-1895	517,801	16.9	33.2	23.6	0.03	0.62	0.26	0.27	0.64	0.00	0.24	0.01	1.19	0.77	7.1	19.2	186	.. 1891-1895
1896-1900	539,599	18.2	32.5	22.7	..	0.89	0.20	0.13	0.53	0.00	0.18	0.01	1.69	0.73	7.1	20.2	192	.. 1896-1900
1901-1905	554,355	17.4	30.9	20.1	0.01	0.55	0.19	0.22	0.41	0.00	0.13	0.00	1.15	0.72	7.1	24.4	173	.. 1901-1905
1906-1910	660,049	17.0	28.1	17.7	..	0.54	0.16	0.17	0.37	0.00	0.10	0.00	0.76	0.68	7.4	27.3	147	.. 1906-1910
1911-1915	720,565	17.9	25.3	16.5	..	0.51	0.12	0.14	0.26	..	0.06	..	0.83	0.66	7.4	29.2	133	.. 1911-1915
1916-1920	B 746,909 D 699,325	18.4	19.9	15.7	..	0.28	0.04	0.08	0.24	..	0.02	0.00	0.33	0.55	6.3	29.7	105	.. 1916-1920
1921-1925	751,080	16.8	20.6	13.9	..	0.25	0.07	0.10	0.21	..	0.01	..	0.31	0.45	5.7	37.4	96	.. 1921-1925
1926-1930	752,840	16.6	17.5	13.9	..	0.18	0.02	0.11	0.14	..	0.01	..	0.29	0.50	4.8	42.8	88	.. 1926-1930
1931-1935	759,180	17.1	15.3	13.4	..	0.11	0.02	0.10	0.08	..	0.00	..	0.15	0.54	4.8	48.3	77	.. 1931-1935
1936-1940	712,660	21.4	15.2	14.3	..	0.07	0.00	0.09	0.04	..	0.00	..	0.10	0.70	4.9	52.0	71	.. 1936-1940
1941-1945	608,256	20.9	18.1	15.0	..	0.02	0.00	0.04	0.06	..	0.00	..	0.15	0.68	5.1	50.7	64	.. 1941-1945
1946-1950	690,264	20.2	20.1	13.1	..	0.01	..	0.00	0.04	..	0.00	..	0.16	0.40	3.6	45.3	48	.. 1946-1950
1946	668,660	22.3	20.9	13.5	..	0.00	..	0.02	0.05	..	0.00	..	0.25	0.44	3.9	46.1	64	.. 1946
1947	685,560	22.2	23.1	13.8	..	0.03	..	0.00	0.03	..	0.00	..	0.33	0.42	3.6	46.7	60	.. 1947
1948	693,000	21.8	19.9	12.3	..	0.02	..	0.00	0.03	..	0.00	..	0.08	0.40	3.8	47.7	42	.. 1948
1949	699,600	20.5	18.8	12.9	..	0.01	..	..	0.04	..	0.00	..	0.09	0.36	3.2	43.6	38	.. 1949
1950	704,500	19.0	17.7	12.8	..	0.01	..	0.00	0.03	..	0.00	..	0.05	0.39	3.4	42.2	38	.. 1950

Quinquennial Average

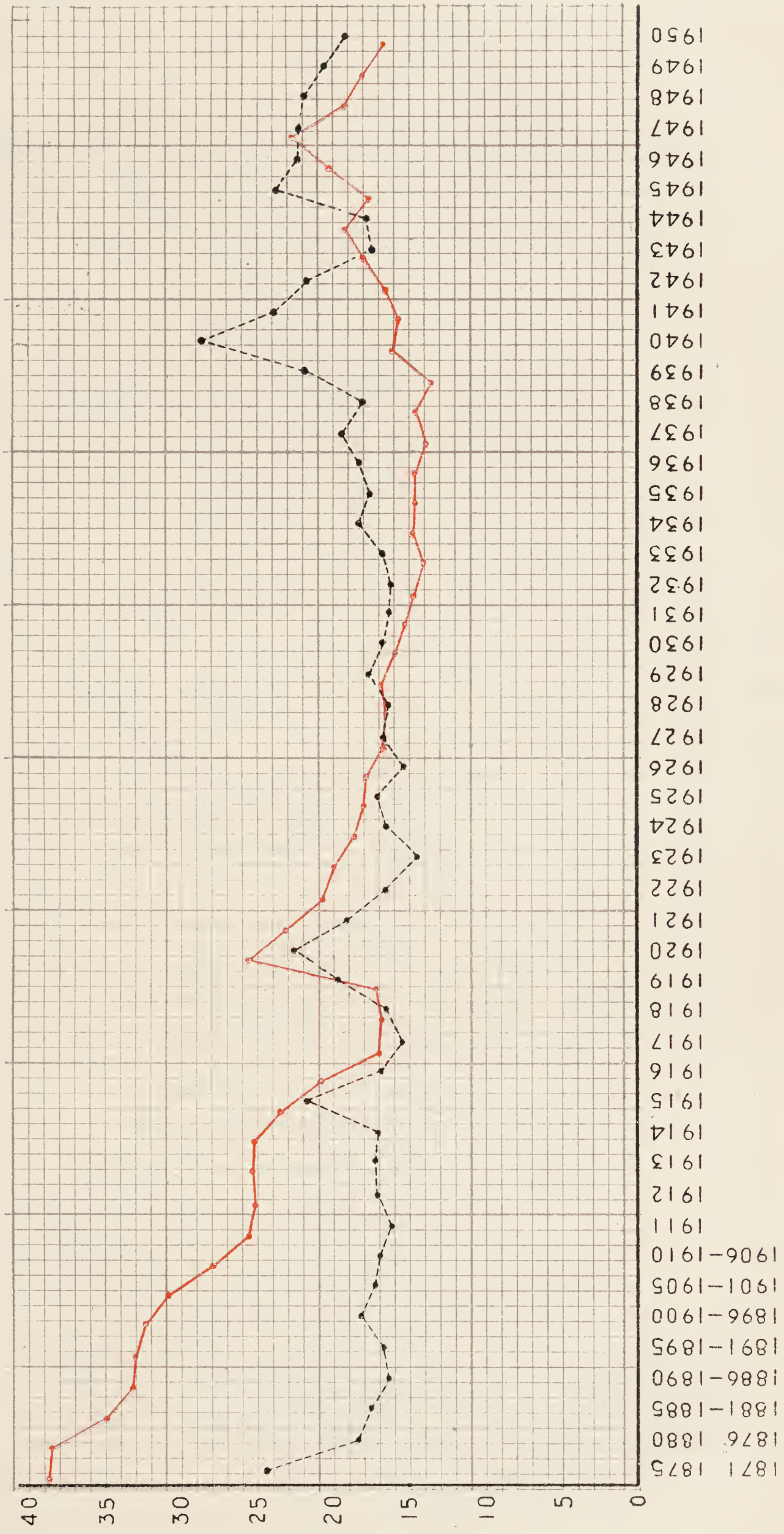
The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken as approximately representing "Manchester." The City was extended to include Moss Side and Withington in November, 1904, Gorton and Levenshulme in November, 1909, and Wythenshawe April, 1931.

MANCHESTER

ANNUAL BIRTH AND MARRIAGE RATES PER 1000 PERSONS LIVING

1871 - 1950

BIRTH RATES
MARRIAGE RATES



Manchester—Annual Rates of Mortality from certain causes of Death.

YEAR		ANNUAL RATES PER 1,000 PERSONS LIVING									RATES PER 1,000 BIRTHS*	
		Malignant Neoplasms	Tuberculosis of Respiratory System	Other Forms of Tuberculosis	Diseases of Nervous System	Diseases of Heart and Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Nephritis and Nephrosis	Diseases of Generative System	Puerperal and Post Abortive Sepsis	Other Puerperal Causes
1881-1885	..	0.50	2.42	0.92	3.28	1.37	5.41	1.23	..	0.08	3.03	1.99
1886-1890	..	0.64	2.24	0.95	3.09	1.73	5.76	1.23	..	0.08	3.22	2.13
1891-1895	..	0.62	2.09	0.97	1.74	2.53	5.56	1.07	..	0.07	2.75	3.42
1896-1900	..	0.73	2.04	0.82	1.32	2.54	5.03	1.04	..	0.09	1.55	1.51
1901-1905	..	0.80	1.91	0.71	1.17	1.74	4.24	1.87	0.41	0.08	1.21	1.76
1906-1910	..	0.88	1.66	0.59	0.95	1.72	3.77	1.42	0.44	0.07	1.28	1.49
1911-1915	..	1.04	1.67	0.47	0.79	1.24	3.62	1.44	0.46	0.09	1.42	2.56
1916-1920	..	1.21	1.61	0.41	0.54	1.21	3.41	0.84	0.41	0.06	1.70	2.14
1921-1925	..	1.36	1.27	0.30	0.51	1.39	3.11	0.74	0.34	0.07	1.83	2.10
1926-1930	..	1.50	1.19	0.21	0.48	1.81	2.65	0.75	0.36	0.07	2.14	2.63
1931-1935	..	1.67	1.02	0.16	0.41	2.50	1.97	0.55	0.37	0.05	* 1.59	* 2.20
1936-1940	..	1.81	0.93	0.14	0.38	3.10	2.07	0.53	0.37	0.06	1.11	2.40
1941-1945	..	2.10	0.93	0.14	†1.62	3.10	2.39	0.65	0.37	0.03	0.71	1.30
1946-1950	..	1.99	0.64	0.08	1.53	3.20	1.99	0.57	0.26	0.04	0.30	0.88
1946 .. ..	..	1.92	0.69	0.10	1.43	2.81	2.11	0.68	0.32	0.00	0.35	1.25
1947 .. ..	..	2.05	0.66	0.09	1.59	3.13	2.11	0.77	0.33	0.07	0.55	0.99
1948 .. ..	..	2.00	0.69	0.07	1.47	2.77	1.80	0.50	0.28	0.02	0.07	0.71
1949 .. ..	..	2.00	0.60	0.05	1.60	3.15	2.10	0.47	0.24	0.02	0.45	0.74
1950 .. ..	..	1.99	0.58	0.07	1.58	4.15	1.86	0.45	0.13	0.08	0.08	0.70

* Maternal Mortality rates until 1930 were based on per 1,000 Live Births. From 1931 onwards these rates were calculated on per 1,000 Live and Stillbirths.

† Diseases of Nervous System includes Cerebral Hæmorrhage from 1941. From 1911 rates are based on Registrar General's Returns.

Manchester, 1950—Deaths in Wards for Various Diseases and Death Rates per 1,000 of the Population.
(Figures Compiled by Medical Officer of Health for 52 Weeks.)

WARDS	ESTIMATED POPULATION	WHOOPING COUGH		DIPHTHERIA		MEASLES		TUBERCULOSIS ALL FORMS		SYPHILITIC DISEASES		DISEASES OF CIRCULATORY SYSTEM		*MALIGNANT NEOPLASMS		PNEUMONIA (4 Weeks +)		BRONCHITIS		DIGESTIVE SYSTEM		GENITO URINARY SYSTEM		ALL CAUSES	
		Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
CITY OF MANCHESTER..	704500	19	·03	3	—	9	·01	457	·65	31	·04	2851	4·05	1389	1·97	332	·47	840	1·19	319	·45	198	·28	8999	12·77
All Saints'	13195	—	—	—	—	—	—	16	1·21	1	·08	54	4·09	28	2·12	10	·76	19	1·44	6	·45	7	·53	197	14·93
Ardwick	18388	1	·05	—	—	2	·11	19	1·03	2	·11	72	3·92	42	2·28	9	·49	27	1·47	7	·38	3	·16	245	13·32
Beswick	22058	2	·09	—	—	1	·05	12	·54	2	·09	84	3·81	49	2·22	15	·68	33	1·50	13	·59	3	·14	278	12·60
Blackley	28805	—	—	—	—	—	—	21	·73	2	·07	106	3·68	63	2·19	10	·35	32	1·11	19	·66	10	·35	345	11·98
Bradford	26030	—	—	1	·04	1	·04	14	·54	—	—	105	4·03	41	1·58	18	·69	21	·81	14	·54	1	·04	293	11·26
Cheetham	22632	1	·04	1	·04	1	·04	14	·62	1	·04	94	4·15	49	2·17	13	·57	20	·88	11	·49	6	·27	279	12·33
Chorlton-cum-Hardy	42717	—	—	—	—	—	—	16	·37	2	·05	177	4·14	91	2·13	14	·33	36	·84	20	·47	13	·30	513	12·01
Collegiate Church	8343	—	—	—	—	—	—	6	·72	1	·12	43	5·15	23	2·76	6	·72	11	1·32	3	·36	3	·36	130	15·58
Collyhurst	12630	—	—	—	—	—	—	11	·87	1	·08	40	3·17	20	1·58	8	·63	26	2·06	5	·40	1	·08	176	13·94
Crumpsall	24917	1	·04	—	—	—	—	8	·32	3	·12	93	3·73	43	1·73	9	·36	16	·64	12	·48	14	·56	284	11·40
Didsbury	31720	1	·03	—	—	—	—	19	·60	—	—	164	5·17	59	1·86	8	·25	31	·98	13	·41	11	·35	497	15·67
Exchange	87	—	—	—	—	—	—	—	—	—	—	1	11·49	—	—	—	—	—	—	—	—	—	—	1	11·49
Gorton North	22367	—	—	—	—	—	—	5	·22	—	—	70	3·13	46	2·06	9	·40	37	1·65	9	·40	6	·27	248	11·09
Gorton South	26952	—	—	—	—	—	—	19	·70	2	·07	106	3·93	52	1·93	10	·37	46	1·71	10	·37	7	·26	336	12·47
Harpurhey	18900	1	·05	—	—	—	—	12	·63	1	·05	71	3·76	36	1·90	10	·53	27	1·43	7	·37	9	·48	226	11·96
Levenshulme	20135	—	—	—	—	—	—	7	·35	—	—	91	4·52	35	1·74	9	·45	14	·70	3	·15	6	·30	244	12·12
Longsight	26140	—	—	—	—	1	·04	12	·46	3	·11	108	4·13	48	1·84	11	·42	36	1·38	15	·57	6	·23	321	12·28
Medlock Street	15774	1	·06	—	—	2	·13	8	·51	1	·06	58	3·68	32	2·03	7	·44	23	1·46	10	·63	5	·32	211	13·38
Miles Platting	14939	1	·07	—	—	—	—	7	·47	—	—	55	3·68	35	2·34	6	·40	24	1·61	2	·13	6	·40	184	12·32
Moston	29912	—	—	—	—	—	—	12	·40	1	·03	118	3·94	76	2·54	3	·10	24	·80	11	·37	10	·33	337	11·27
Moss Side East	17092	2	·12	—	—	—	—	11	·64	—	—	68	3·98	32	1·87	14	·82	27	1·58	6	·35	3	·18	234	13·69
Moss Side West	19750	2	·10	—	—	—	—	17	·86	1	·05	105	5·32	38	1·92	10	·51	28	1·42	7	·35	6	·30	295	14·94
New Cross	12987	2	·15	—	—	—	—	13	1·00	2	·15	61	4·70	34	2·62	11	·85	31	2·39	8	·62	3	·23	219	16·86
Newton Heath	21323	—	—	1	·05	—	—	19	·89	—	—	112	5·25	45	2·11	8	·38	27	1·27	11	·52	5	·23	316	14·82
Openshaw	18894	3	·16	—	—	—	—	11	·58	1	·05	63	3·33	39	2·06	9	·48	27	1·43	8	·42	2	·11	246	13·02
Oxford	197	—	—	—	—	—	—	3	15·23	—	—	4	20·30	1	5·08	2	10·15	2	10·15	—	—	—	—	16	81·22
Rusholme	20600	—	—	—	—	—	—	16	·78	1	·05	98	4·76	49	2·38	11	·53	16	·78	6	·29	8	·39	287	13·93
St. Ann's	18	—	—	—	—	—	—	—	—	—	—	1	55·56	—	—	—	—	3	166·67	—	—	—	—	4	222·22
St. Clement's	773	—	—	—	—	—	—	1	1·29	—	—	3	3·88	3	3·88	—	—	—	—	1	1·29	2	2·59	13	16·82
St. George's	16539	1	·06	—	—	—	—	10	·60	—	—	64	3·87	18	1·09	18	1·09	32	1·93	7	·42	6	·36	210	12·70
St. John's	1573	—	—	—	—	—	—	1	·64	—	—	12	7·63	6	3·81	1	·64	—	—	2	1·27	—	—	28	17·80
St. Luke's	20595	—	—	—	—	—	—	23	1·12	—	—	95	4·61	31	1·51	13	·63	32	1·55	9	·44	3	·15	315	15·29
St. Mark's	19849	—	—	—	—	—	—	9	·45	—	—	63	3·17	32	1·61	8	·40	22	1·11	9	·45	7	·35	221	11·13
St. Michael's	11813	—	—	—	—	1	·08	2	·17	2	·17	54	4·57	19	1·61	13	1·10	19	1·61	5	·42	3	·25	170	14·39
Withington	50400	—	—	—	—	—	—	35	·69	1	·02	196	3·89	106	2·10	15	·30	43	·85	25	·50	17	·34	605	12·00
Wythenshawe	45456	—	—	—	—	—	—	48	1·06	—	—	142	3·12	68	1·50	14	·31	28	·62	25	·55	6	·13	475	10·45

* Includes Neoplasms of Lymphatic and Haematopoietic Tissues.

MATERNAL MORTALITY

MORTALITY PER 1000 LIVE AND STILLBIRTHS

ENGLAND AND WALES

PUERPERAL AND POSTABORTIVE SEPSIS

OTHER CAUSES

MANCHESTER

PUERPERAL AND POSTABORTIVE SEPSIS

OTHER CAUSES

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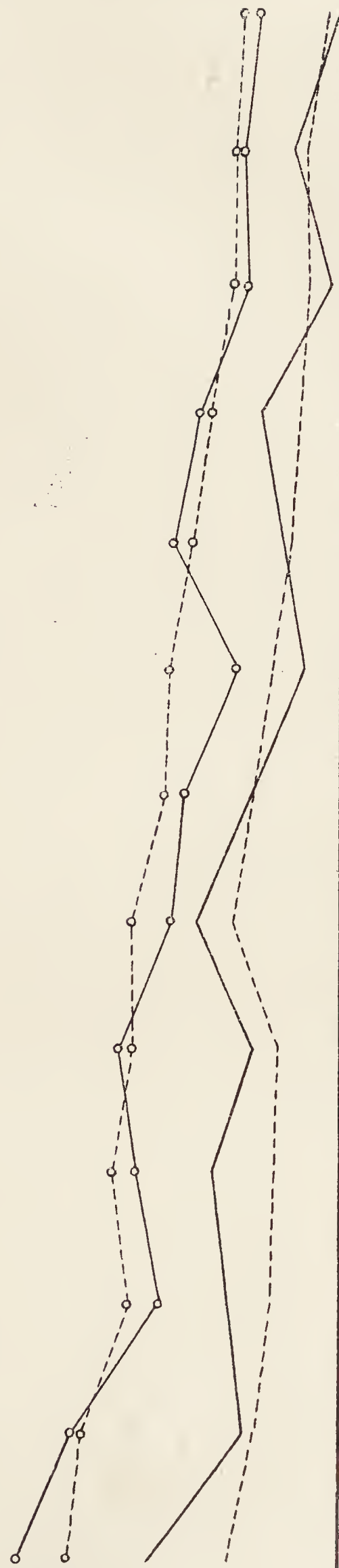
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1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950



Manchester, 1950—Causes of Death in Infancy and Childhood.

(Figures compiled by Medical Officer of Health for 52 weeks)

CAUSE OF DEATH	Under 1 Year					1 to 5 Years					Total under 5 Years
	Under 4 Weeks	4 Weeks to 3 Months	3—6 Months	6—12 Months	Total	1—2 Years	2—3 Years	3—4 Years	4—5 Years	Total	
All Causes	263	86	71	51	471	33	21	11	11	76	547
Tuberculosis (Respiratory)	—	—	—	—	—	1	—	—	2	3	3
Tubercular Meningitis	—	—	—	1	1	1	—	1	3	7	8
Tubercular Peritonitis and Tabes Mesenterica	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis (Other)	—	—	1	—	1	—	—	—	—	—	1
Syphilitic Disorders	1	—	—	—	1	—	—	—	—	—	1
Diphtheria	—	—	—	—	—	—	—	—	1	1	1
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	2	7	5	14	3	—	—	—	3	17
Measles	—	—	1	4	5	1	2	—	—	3	8
Acute Poliomyelitis	—	—	—	—	—	—	1	1	—	2	2
Meningococcal Infection	—	—	—	2	2	1	1	—	—	2	4
Acute Inf. Encephalitis..	—	—	—	—	—	—	—	—	—	—	—
Dysentery..	—	—	—	—	—	—	—	—	—	—	—
Other Food Poisoning	—	—	—	—	—	—	—	—	—	—	—
Rickets	—	—	—	—	—	—	—	—	—	—	—
Meningitis (not T.B.)	—	—	—	1	1	2	—	1	—	3	4
Other Nervous Disorders	—	—	2	4	6	1	1	—	1	3	9
Influenza	—	—	—	—	—	—	—	—	—	—	—
Broncho Pneumonia (4 weeks +)	—	23	13	8	44	6	2	—	1	11	55
Lobar	—	5	2	3	10	2	—	—	2	4	14
Other	—	—	—	1	1	—	—	—	—	—	1
Bronchitis..	—	4	8	2	14	4	1	—	—	5	19
Other Respiratory	—	1	1	—	2	1	—	—	—	1	3
Diarrhoea (4 weeks to 2 years)	—	18	9	9	36	1	—	—	—	1	37
Gastritis	—	—	—	—	—	—	—	—	—	—	—
Other Digestive	1	1	5	3	10	—	1	—	—	1	11
Congenital Defects	41	13	8	5	67	3	—	2	—	5	72
Birth Injury with immaturity	9	—	—	—	9	—	—	—	—	—	9
" " without	24	—	—	—	24	—	—	—	—	—	24
Atelectasis with	31	—	—	—	31	—	—	—	—	—	31
" " without	26	2	1	—	29	—	—	—	—	—	29
Pneumonia with	4	—	—	—	4	—	—	—	—	—	4
Pneumonia without	15	—	—	—	15	—	—	—	—	—	15
Diarrhoea with	—	—	—	—	—	—	—	—	—	—	—
" " without	2	—	—	—	2	—	—	—	—	—	2
Other Sepsis of Newborn with immaturity (—4 weeks)	1	—	—	—	1	—	—	—	—	—	1
" " without	—	—	—	—	—	—	—	—	—	—	—
Others of early Infancy with Immaturity	12	—	—	—	12	—	—	—	—	—	12
" " without	10	3	2	—	15	—	—	—	—	—	15
Immaturity unqualified	78	2	1	—	81	—	—	—	—	—	81
Suffocation (overlain)	1	1	1	—	3	—	—	—	—	—	3
Other Violence	6	1	1	—	9	—	8	3	—	17	26
Other Causes	1	10	8	2	21	1	2	1	—	4	25

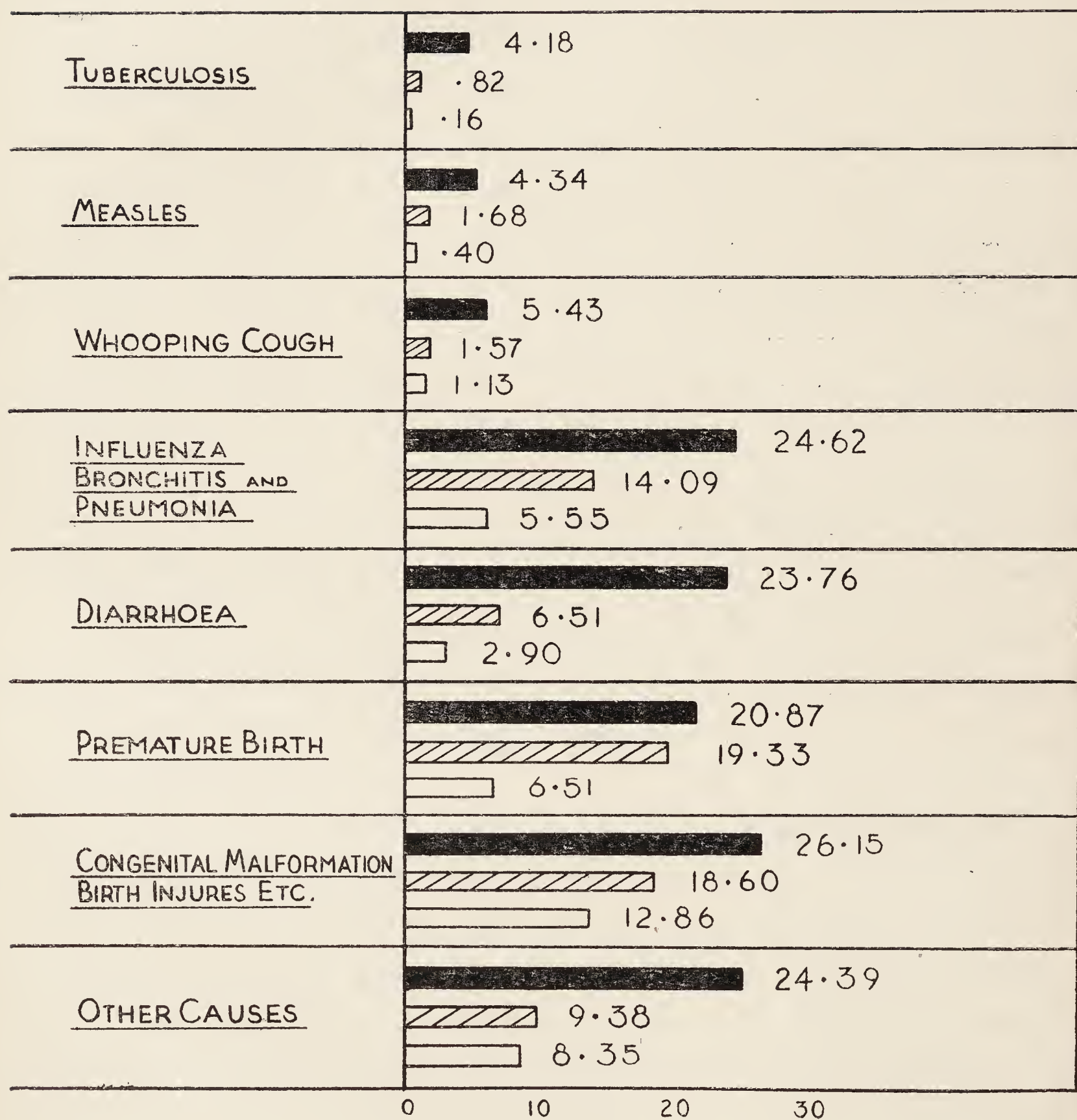
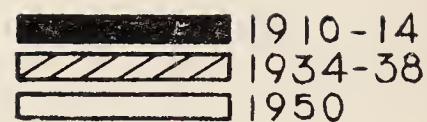
INFANT MORTALITY.

Deaths from Various Causes per 1,000 Live Births.

1945—50.

Cause of Death	Rate per 1,000 Live Births					
	1945	1946	1947	1948	1949	1950
All causes	55·80	63·71	59·76	42·12	38·24	37·87
Tuberculosis Respiratory	0·26	0·22	0·25	0·14	0·08	0·08
do Other	0·35	0·64	0·38	0·36	0·23	0·08
Syphilitic Diseases	0·53	0·43	0·19	0·14	0·08	0·08
Scarlet Fever .. .. .	..	..	..	..	..	..
Diphtheria .. .. .	..	..	..	..	..	..
Whooping Cough	1·06	1·57	0·69	0·94	1·45	1·13
Meningococcal Infections	0·44	0·29	0·13	0·22	0·38	0·16
Acute Poliomyelitis .. .. .	..	..	..	..	..	..
Acute Infectious Encephalitis .. .. .	..	..	0·06	..	..	..
Measles	0·26	0·14	0·69	0·22	0·08	0·40
Vascular Lesions of Central Nervous System	0·26	0·29	0·19	0·14	0·08	..
Influenza	0·18	0·21	0·19	0·07	0·38	..
Pneumonia	8·54	8·95	9·73	7·76	6·93	4·42
Bronchitis	2·55	1·58	1·01	0·58	0·91	1·13
Other Respiratory Diseases	0·44	0·57	0·44	0·36	0·23	0·16
Diarrhoeal Diseases	7·30	11·96	14·47	4·13	4·34	2·90
Other Digestive Diseases	0·53	0·57	0·69	0·65	0·31	0·80
Nephritis and Nephrosis .. .. .	..	0·07	0·25	..	..	0·08
Congenital Malformations	7·22	7·95	5·94	5·58	4·57	5·07
Birth Injuries	3·87	3·29	2·15	2·68	3·35	2·65
Premature Birth	11·35	13·74	11·62	7·54	5·33	6·51
Other Diseases of Early Infancy	5·98	6·51	6·70	5·36	5·64	8·76
Violence	1·41	1·79	1·83	1·09	0·84	0·96
All other causes	3·35	2·94	2·16	4·16	3·03	2·50

INFANT MORTALITY



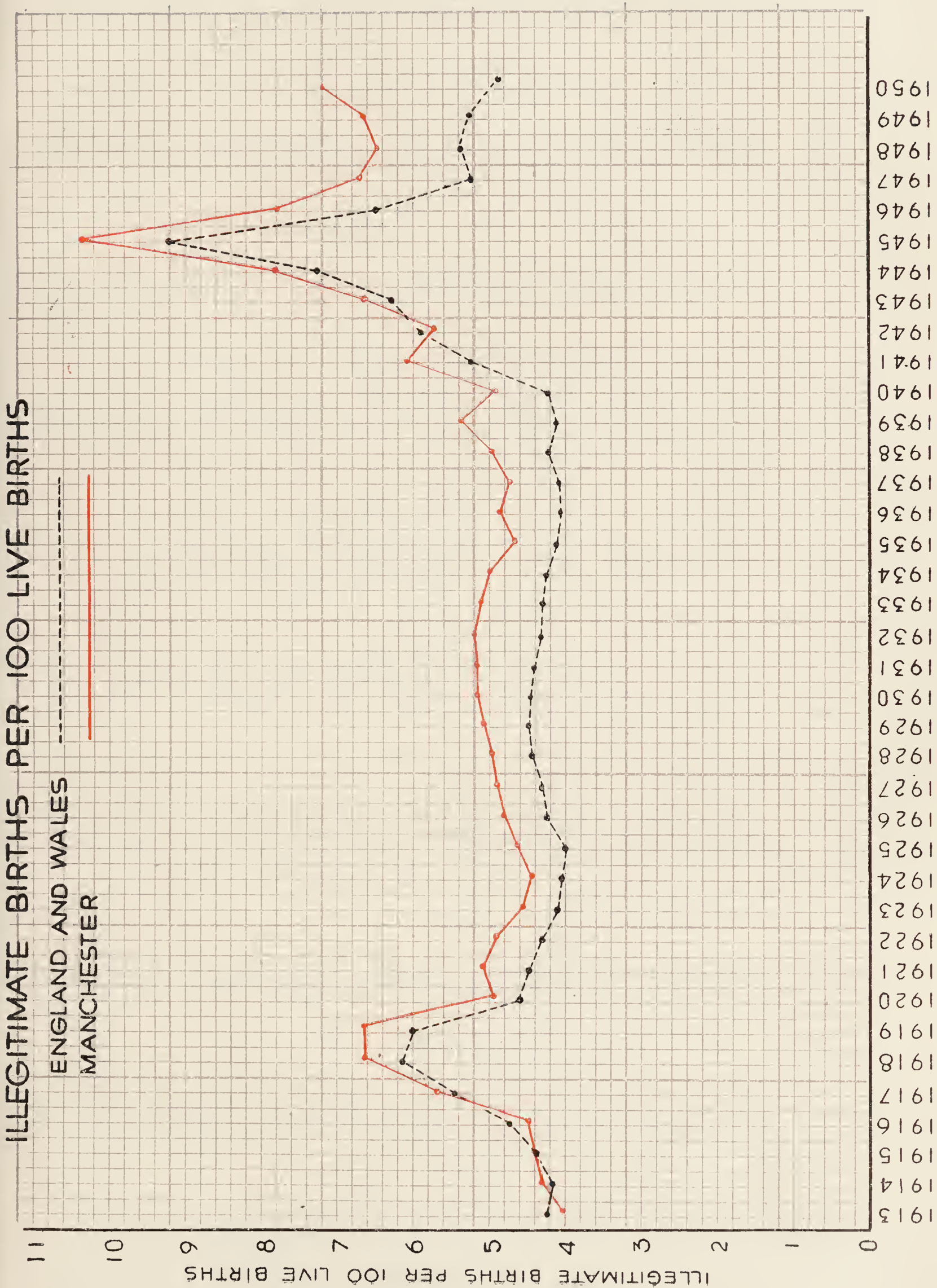
Deaths under One Year of Age from Premature Birth, Diarrhoea, and Other Causes, 1939-1950.
Manchester—(From Registrar-General's Returns).

Year	Premature Birth		Diarrhoea		Other Causes		Total Deaths	Infant Mortality Rate per 1,000 Live Births
	Deaths	Rate per 1,000 Live Births	Deaths	Rate per 1,000 Live Births	Deaths	Rate per 1,000 Live Births		
1939 ..	161	15.5	60	5.8	413	39.8	634	61.1
1940 ..	146	14.0	70	6.7	513	49.4	729	70.2
1941 ..	176	17.9	109	11.0	547	55.5	832	84.5
1942 ..	187	18.2	88	8.6	388	37.8	663	64.5
1943 ..	167	14.9	85	7.6	429	38.4	681	60.8
1944 ..	164	13.4	72	5.9	418	34.3	654	53.6
1945 ..	129	11.4	83	7.3	422	37.1	634	55.8
1946 ..	192	13.7	167	12.0	531	38.0	890	63.7
1947 ..	181	11.4	223	14.1	542	34.3	946	59.8
1948 ..	104	7.5	57	4.1	420	30.5	581	42.1
1949 ..	70	5.3	57	4.3	375	28.6	502	38.2
1950 ..	81	6.5	38	3.0	352	28.4	471	37.9

Total Legitimate and Illegitimate Live Births in England and Wales and Manchester, with Illegitimate Percentages.
From Registrar-General's Return.

YEAR	LIVE BIRTHS, ENGLAND AND WALES				LIVE BIRTHS, MANCHESTER			
	Total	Legitimate	Illegitimate	Illegitimate % of total live births	Total	Legitimate	Illegitimate	Illegitimate % of total live births
1913 ..	881,890	843,981	37,909	4.30	18,791	18,018	773	4.11
1914 ..	879,096	841,767	37,329	4.25	18,779	17,972	807	4.30
1915 ..	814,614	778,369	36,245	4.45	16,696	15,956	740	4.43
1916 ..	785,520	747,831	37,689	4.80	15,597	14,901	696	4.46
1917 ..	668,543	631,189	37,157	5.56	12,937	12,195	742	5.74
1918 ..	662,773	621,620	41,153	6.21	12,926	12,053	873	6.75
1919 ..	692,438	650,562	41,876	6.05	13,686	12,758	928	6.78
1920 ..	957,994	913,727	44,267	4.62	19,213	18,253	960	4.99
1921 ..	848,814	810,196	38,618	4.52	17,549	16,647	902	5.14
1922 ..	780,124	745,986	34,138	4.38	15,787	15,013	774	4.90
1923 ..	758,131	726,609	31,522	4.16	15,388	14,677	711	4.62
1924 ..	729,933	699,637	30,296	4.15	14,483	13,826	657	4.54
1925 ..	710,582	681,686	28,896	4.07	14,162	13,493	669	4.72
1926 ..	694,563	664,972	29,591	4.26	13,969	13,290	679	4.86
1927 ..	654,172	625,149	29,023	4.35	13,036	12,388	648	4.97
1928 ..	660,267	630,565	29,702	4.50	12,902	12,256	646	5.01
1929 ..	643,673	614,366	29,307	4.55	13,058	12,380	678	5.19
1930 ..	648,811	619,129	29,682	4.57	12,851	12,178	673	5.24
1931 ..	632,081	603,995	28,086	4.44	12,337	11,694	643	5.21
1932 ..	613,972	586,961	27,011	4.39	11,825	11,206	619	5.24
1933 ..	580,413	555,005	25,408	4.37	11,156	10,582	574	5.15
1934 ..	597,642	571,857	25,785	4.31	11,555	10,974	581	5.03
1935 ..	598,756	573,651	25,105	4.19	11,379	10,842	537	4.72
1936 ..	605,292	580,397	24,895	4.11	11,231	10,681	550	4.90
1937 ..	610,557	585,216	25,341	4.15	10,786	10,268	518	4.80
1938 ..	621,204	594,825	26,379	4.25	11,025	10,468	557	5.05
1939 ..	619,352	593,410	25,942	4.19	10,378	9,807	571	5.50
1940 ..	607,029	581,156	25,873	4.26	10,388	9,873	515	4.96
1941 ..	579,091	548,033	31,058	5.36	9,849	9,239	610	6.19
1942 ..	651,503	615,036	36,467	6.00	10,276	9,680	596	5.80
1943 ..	684,334	640,625	43,709	6.38	11,185	10,431	754	6.74
1944 ..	751,478	696,305	55,173	7.34	12,204	11,239	965	7.91
1945 ..	679,937	616,517	63,420	9.33	11,362	10,175	1,187	10.45
1946 ..	820,719	766,800	53,919	6.57	13,969	12,874	1,095	7.84
1947 ..	881,026	834,423	46,603	5.29	15,830	14,760	1,070	6.76
1948 ..	775,306	733,732	41,574	5.41	13,794	12,886	908	6.58
1949 ..	730,518	693,611	36,907	5.34	13,129	12,243	886	6.75
*1950 ..	692,457	658,310	34,147	4.93	12,436	11,523	913	7.34

* Figures for England and Wales are provisional.



Deaths of Infants under One Year of Age.
Manchester, 1913 to 1950.
From Registrar-General's Return.

Year	Total live births	Total deaths under one year	Deaths per 1,000 of the total live births	Legitimate births	Legitimate deaths	Deaths per 1,000 legitimately born	Illegitimate births	Illegitimate deaths	Deaths per 1,000 illegitimately born
1913	18,791	2,415	128.52	18,018	2,239	124.26	773	176	227.68
1914	18,779	2,423	129.03	17,972	2,218	123.41	807	205	254.03
1915	16,696	2,141	128.24	15,956	1,959	122.78	740	182	245.95
1916	15,597	1,737	111.37	14,901	1,578	105.90	696	159	228.45
1917	12,937	1,438	111.15	12,196	1,262	103.48	742	176	237.20
1918	12,926	1,381	106.83	12,053	1,201	100.00	873	180	206.19
1919	13,686	1,333	97.40	12,758	1,173	91.94	928	160	172.41
1920	19,213	1,882	97.95	18,253	1,169	64.04	960	213	221.88
1921	17,549	1,713	97.61	16,647	1,542	92.63	902	171	189.58
1922	15,787	1,525	96.60	15,013	1,375	91.59	774	150	193.80
1923	15,388	1,360	88.35	14,677	1,243	84.69	711	117	164.56
1924	14,483	1,454	100.39	13,826	1,316	95.18	657	138	210.05
1925	14,162	1,364	96.31	13,493	1,251	92.72	669	113	168.91
1926	13,969	1,216	87.05	13,290	1,116	83.97	679	100	147.28
1927	13,036	1,122	86.07	12,388	1,032	83.31	648	90	138.89
1928	12,902	1,179	91.38	12,256	1,084	88.44	646	95	147.06
1929	13,058	1,272	97.41	12,380	1,144	92.41	678	128	188.79
1930	12,851	995	77.43	12,178	881	72.34	673	114	169.39
1931	12,337	1,049	85.03	11,694	956	81.75	643	93	144.64
1932	11,825	1,015	85.83	11,206	934	83.35	619	81	130.86
1933	11,156	834	74.76	10,582	769	72.67	574	65	113.24
1934	11,155	798	69.06	10,974	742	67.61	581	56	96.39
1935	11,379	809	71.09	10,842	757	69.82	537	52	96.83
1936	11,231	863	76.84	10,681	816	76.40	550	47	85.45
1937	10,786	823	76.30	10,268	770	74.99	518	53	102.32
1938	11,025	761	69.03	10,468	702	67.06	557	59	105.92
1939	10,378	634	61.09	9,807	587	59.85	571	47	82.31
1940	10,388	729	70.18	9,873	677	68.57	515	52	100.97
1941	9,849	832	84.47	9,239	767	83.02	610	65	106.56
1942	10,276	663	64.52	9,680	621	64.15	596	42	70.47
1943	11,185	681	60.88	10,431	625	59.92	754	56	74.27
1944	12,204	654	53.59	11,239	577	51.34	965	77	79.79
1945	11,362	634	55.80	10,175	557	54.74	1,187	77	64.87
1946	13,969	890	63.71	2,874	798	61.98	1,095	92	84.02
1947	15,830	946	59.76	14,760	859	58.20	1,070	87	81.31
1948	13,794	581	42.12	12,886	524	40.66	908	57	62.77
1949	13,129	502	38.24	12,243	461	37.65	886	41	46.28
1950	12,436	471	37.87	11,523	433	37.58	913	38	41.62

WARDS	LIVE BIRTHS				DEATHS UNDER 1 YEAR				
	Total	Legitimate	Illegitimate	% Illegitimate to Total Live Births	Total	Legitimate	Illegitimate	Rate per 1000 Live Births	Rate per 1000 Live Births Illegitimate
CITY OF MANCHESTER..	12436	11523	913	7.34	471	433	38	37.87	41.62
All Saints'	349	278	71	16.17	11	11	—	31.52	—
Ardwick	414	381	33	7.97	16	16	—	38.65	—
Beswick ..	404	387	17	4.21	21	21	—	51.98	—
Blackley ..	533	515	18	3.38	17	17	—	31.89	—
Bradford	433	405	28	6.47	22	20	2	50.81	71.43
Cheetham	374	353	21	5.61	16	15	1	42.78	47.62
Chorlton-cum-Hardy	487	467	20	4.11	18	15	3	36.96	150.00
Collegiate Church..	205	177	28	13.66	4	4	—	19.51	—
Collyhurst	382	362	20	5.24	17	17	—	44.50	—
Crumpsall	390	373	17	4.36	16	14	2	41.03	117.65
Didsbury	390	376	14	3.59	13	11	2	33.33	142.86
Exchange	1	1	—	—	—	—	—	—	—
Gorton North	286	276	10	3.50	9	8	1	31.47	100.00
Gorton South	362	339	23	6.35	16	15	1	44.20	43.48
Harpurhey	342	323	19	5.56	13	13	—	38.01	—
Levenshulme	212	203	9	4.24	5	4	1	23.58	111.11
Longsight	328	307	21	6.40	5	4	1	15.24	47.62
Medlock Street	416	375	41	9.86	15	15	—	36.06	—
Miles Platting	321	299	22	6.85	11	8	3	34.27	136.36
Moston ..	429	415	14	3.26	15	15	—	34.96	—
Moss Side East	411	335	76	18.49	19	14	5	46.23	65.79
Moss Side West	424	376	48	11.32	13	12	1	30.66	20.83
New Cross	305	280	25	8.20	8	6	2	26.23	80.00
Newton Heath	352	337	15	4.26	15	14	1	42.61	66.67
Openshaw	342	322	20	5.85	19	18	1	55.56	50.00
Oxford	7	7	—	—	—	—	—	—	—
Rusholme	261	246	15	5.75	8	8	—	30.65	—
St. Ann's	—	—	—	—	—	—	—	—	—
St. Clement's	11	9	2	18.18	—	—	—	—	—
St. George's	401	372	29	7.23	17	16	1	42.39	34.48
St. John's	32	30	2	6.25	1	1	—	31.25	—
St. Luke's	499	416	83	16.63	27	21	6	54.11	72.29
St. Mark's	367	331	36	9.81	15	15	—	40.87	—
St. Michael's	300	264	36	12.00	19	18	1	63.33	27.78
Withington	556	529	27	4.86	20	17	3	35.97	111.11
Wythenshawe	1110	1057	53	4.77	30	30	—	27.03	—

Stillbirths, Neo-Natal Deaths, and Deaths at Four Weeks to One Year of Age per 1,000 Births
(Live and Stillbirth), also Infant Death Rate per 1,000 Live Births.
Manchester.

Year	Total live and stillbirths	STILLBIRTHS		NEO-NATAL DEATHS		DEATHS, 4 WEEKS— 1 YEAR		DEATHS UNDER 1 YEAR AND STILLBIRTHS		Infant death rate per 1,000 live births
		Number of stillbirths	Rate per 1,000 live and stillbirths	Number of neo-natal deaths, 0-4 weeks	Rate per 1,000 total live and stillbirths	Number of deaths, 4 weeks— 1 year	Rate per 1,000 total live and stillbirths	Number of deaths under 1 year and stillbirths	Rate per 1,000 total live and stillbirths	
1932 ..	12,386	561	45.29	418	33.75	597	48.20	1,576	127.24	85.83
1933 ..	11,738	582	49.58	385	32.80	449	38.25	1,416	120.63	74.76
1934 ..	12,090	535	44.25	390	32.26	408	33.75	1,333	110.26	69.06
1935 ..	11,925	546	45.79	381	31.95	428	35.89	1,355	113.63	71.09
1936 ..	11,762	531	45.15	385	32.73	478	40.64	1,394	118.52	76.84
1937 ..	11,254	468	41.59	381	33.86	442	39.28	1,291	114.71	76.30
1938 ..	11,532	507	43.96	351	30.44	410	35.55	1,268	109.95	69.03
1939 ..	10,870	492	45.26	321	29.53	313	28.80	1,126	103.59	61.09
1940 ..	10,866	478	43.99	295	27.15	434	39.94	1,207	111.08	70.18
1941 ..	10,249	400	39.03	292	28.49	540	52.69	1,232	120.21	84.47
1942 ..	10,719	443	41.33	304	28.36	359	33.49	1,106	103.18	64.52
1943 ..	11,591	406	35.02	306	26.40	375	32.35	1,087	93.77	60.88
1944 ..	12,571	367	29.19	315	25.06	339	26.97	1,021	81.22	53.59
1945 ..	11,734	372	31.70	311	26.50	323	27.53	1,006	85.73	55.80
1946 ..	14,414	445	30.87	474	32.88	416	28.86	1,335	92.62	63.71
1947 ..	16,257	427	26.27	468	28.79	485	29.83	1,380	84.89	59.76
1948 ..	14,170	376	26.53	271	19.13	310	21.88	957	67.54	42.12
1949 ..	13,460	331	24.59	241	17.90	261	19.39	833	61.88	38.24



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INFECTIOUS DISEASES AND EPIDEMIOLOGY.

The deaths from the more common diseases are shown in the following figures :—

	Years	
	1945-49 Average	1950
Measles	11	9
Whooping Cough	25	19
Scarlet Fever	—	—
Diphtheria	6	3
Influenza	62	61
Pneumonia (all forms)	393	331
Enteric Fever	1	—
Diarrhoeal Disease	139	70
Pulmonary Tuberculosis	460	411

Consultations.

38 consultation visits were made during the year by medical officers of the Department at the request of medical practitioners in the City in connection with the diagnosis of cases of infectious disease in which the nature of the illness was in doubt.

SMALLPOX.

No case of smallpox occurred in Manchester during the year.

VACCINATION.

The number of children under 1 year of age successfully vaccinated was 43·49 per cent. of the children born in Manchester in 1950. The percentages for the last five years were :—

<i>Year</i>	<i>Percentage</i>
1946	61·11
1947	59·20
1948	35·19
1949	22·52
1950	43·49

1950—Scarlet Fever Cases in Wards, with Attack Rate, Case Mortality, and Removals to Hospital per cent.

Wards	Cases	Attack Rate per 1,000 Living	Case Mortality per cent.	Removals to Hospital per cent.
City	1,447	2·05	—	23·8
All Saints'	15	1·14	—	40·0
Ardwick	59	3·21	—	22·0
Beswick	44	1·99	—	20·4
Blackley	72	2·50	—	13·75
Bradford	37	1·42	—	37·8
Cheetham.. .. .	38	1·68	—	23·7
Chorlton-cum-Hardy ..	59	1·38	—	22·0
Collegiate Church	16	1·92	—	50·0
Collyhurst	40	3·17	—	20·0
Crumpsall	59	2·36	—	16·9
Didsbury	64	2·02	—	18·75
Exchange	—	—	—	—
Gorton North	30	1·34	—	33·3
Gorton South	58	2·15	—	39·7
Harpurhey	38	2·01	—	29·5
Levenshulme	53	2·63	—	20·1
Longsight	32	1·22	—	15·6
Medlock Street	21	1·33	—	28·6
Miles Platting	43	2·87	—	51·2
Moston	55	1·84	—	20·0
Moss Side East	19	1·11	—	26·3
Moss Side West	21	1·63	—	23·8
New Cross	31	2·39	—	29·0
Newton Heath	72	3·38	—	22·2
Openshaw	34	1·80	—	23·4
Oxford	2	10·15	—	50·0
Rusholme.. .. .	55	2·66	—	25·4
St. Ann's	—	—	—	—
St. Clement's	1	1·29	—	—
St. George's	17	1·03	—	29·4
St. John's	1	0·63	—	100·0
St. Luke's	38	1·84	—	31·6
St. Mark's	43	2·17	—	25·6
St. Michael's	31	2·62	—	3·2
Withington	103	2·04	—	20·4
Wythenshawe	146	3·21	—	17·8

DIPHTHERIA.

The following figures show the number of cases notified and accepted as diphtheria each year for the last ten years :—

1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
770	589	791	266	302	259	80	43	22	22

Mortality.

The case mortality in 1950 was 9.09 per cent., as compared with an average of 2.44 for the last five years.

TABLE 1.

Diphtheria.—Manchester Case Mortality Rates per cent. in Age Groups.

	0-5 years	5-10 years	10-15 years	15 years and over
1901-10	33.5	17.8	6.0	4.5
1941-50	4.9	4.2	1.9	1.8
Percentage Reduction	85	76	68	60

“ Carriers ” and the Virulence Test.

Of the total number of formal notifications received it was found on investigation that 14 related to persons who were merely “ carriers ” of diphtheria.

Swabs.

A total of 136 swabs were submitted to the Public Health Laboratory upon request by medical practitioners during the year and, of these, 10 or 7.4 per cent. proved positive. So far as was practicable, swabs were taken from the throats and noses of all members under 14 years of age of each family where there had occurred a case of diphtheria.

Supply of Anti-toxin.

Under the National Health Service Act the responsibility for the provision of diphtheria anti-toxin for use by general practitioners when required has been taken over by the Regional Hospital Board. Arrangements have now been made for supplies of anti-toxin to be available at certain hospitals and fire stations in the City.

TABLE II.

Diphtheria.—Number of Cases, of Deaths, and Case Mortality at Different Ages for the Fifty-Eight Years, 1891–1949 and for 1950.

Ages	1891–1949			1950		
	Cases	Deaths	* Case Mortality per cent.	Cases	Deaths	* Case Mortality per cent.
Under 1 year	643	316	49.00	—	—	—
1 to 2 years	1,613	638	40.00	—	—	—
2 to 3 „	2,449	652	26.62	1	—	—
3 to 4 „	3,184	660	20.73	1	—	—
4 to 5 „	3,596	592	16.46	1	1	100.0
5 to 6 „	3,902	518	13.28	2	—	—
6 to 7 „	3,362	349	10.38	2	—	—
7 to 8 „	2,690	250	9.29	2	—	—
8 to 9 „	2,229	198	8.90	1	—	—
9 to 10 „	1,681	141	8.39	2	—	—
10 to 15 „	5,256	203	3.86	3	1	33.3
15 to 20 „	2,107	59	2.80	1	—	—
20 to 25 „	1,255	28	2.31	3	—	—
25 to 35 „	1,404	29	2.07	2	—	—
35 to 45 „	567	11	1.94	1	—	—
45 and over	295	26	8.81	—	—	—
All ages	36,233	4,670	12.89	22	2	9.09

In addition 1 death occurred from diphtheria which was notified in 1949.

* The percentages in this column are the actual proportions of fatal cases to true cases at those ages. “Carriers” are excluded.

The case mortality percentage at all ages since 1941 has been as follows :—

1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
5.84	4.58	3.16	2.26	4.63	4.25	5.00	2.33	NIL	9.09

TABLE III.

Diphtheria, 1950—Cases and Deaths in Wards, with Attack Rate.

Wards	Cases	Deaths	Attack Rate. per 1,000 Living
City	22	2	0·03
All Saints'	—	—	—
Ardwick	—	—	—
Beswick	3	—	0·14
Blackley	—	—	—
Bradford	3	1	0·11
Cheetham	1	—	0·04
Chorlton-cum-H.	—	—	—
Collegiate Church	4	—	0·48
Collyhurst	3	—	0·24
Crumpsall	—	—	—
Didsbury	—	—	—
Exchange	—	—	—
Gorton North	1	—	0·04
Gorton South	—	—	—
Harpurhey	—	—	—
Levenshulme	—	—	—
Longsight	—	—	—
Medlock Street	1	—	0·06
Miles Platting	1	—	0·07
Moston.. .. .	—	—	—
Moss Side East	—	—	—
Moss Side West.. .. .	—	—	—
New Cross	—	—	—
Newton Heath	2	1	0·09
Openshaw	—	—	—
Oxford	—	—	—
Rusholme	1	—	0·05
St. Ann's	—	—	—
St. Clement's	—	—	—
St. George's	1	—	0·06
St. John's	—	—	—
St. Luke's	—	—	—
St. Mark's	1	—	0·05
St. Michael's	—	—	—
Withington	—	—	—
Wythenshawe	—	—	—

† In addition 1 death occurred from diphtheria which was notified in 1949.

Immunisation against Diphtheria.

During the year 10,244 persons received a complete course of diphtheria prophylactic injections. 716 others received an incomplete course. The numbers were distributed as follows :—

TABLE A.

Number of Persons dealt with in Manchester in 1950.

	Numbers having received complete course of prophylactic	Numbers having received incomplete course of prophylactic	Numbers having received reinforcing course of prophylactic
School and School Clinics..	1,387	278	5,667
Child Welfare Centres ..	3,929	295	397
Day Nurseries	249	2	87
Hospitals	47	2	6
Health Office	14	—	38
Mobile Unit	2,858	116	416
General Practitioners ..	1,700	17	352
Outside Authorities.. ..	60	6	97
Totals	10,244	716	7,060

During the year the Mobile Unit continued to visit the areas of the City in which the percentage of immunised children under 5 years of age was low and areas situated at a distance from the Child Welfare Centres and Day Nurseries. This Unit was responsible for the complete immunisation of 2,858 children.

During the period 1st January to 21st May, 1950, Alum Precipitated Toxoid in two doses of 0.5 cc. with a four-weeks interval between injections was used for the majority of children under 8 years, who had the treatment carried out at the Welfare Centres, Mobile Immunisation Unit and at the Health Office. Children aged 8–15 years received A.P.T. in two doses of 0.2 cc. and 0.5 cc., whilst persons over 15 years received three injections of T.A.F.

Two prophylactics—T.A.F. and A.P.T.—were in use at the hospitals, and this material was also supplied to general medical practitioners in the City during this period.

As from the 22nd May, 1950, at the request of the Medical Research Council, the City of Manchester Health Department in conjunction with some other large authorities agreed to take part in a test of a new Diphtheria Prophylactic agent—P.T.A.P. (Purified Toxoid Alum Precipitate).

From the date of this change-over all stocks of A.P.T. and T.A.F. were withdrawn and replaced by P.T.A.P., except in cases where stocks of A.P.T. and T.A.F. were required to complete unfinished courses of inoculations.

The present primary immunisation dosage of P.T.A.P. for children of all ages is two injections of 0.5 cc., with a weekly interval between injections and subsequently at the age of 5 and 10 years a “ booster ” or reinforcing dose of 0.5 cc. P.T.A.P. is given.

TABLE B.

Prophylactics Used in Immunising Pre-School and School Children.

Age Group	Number having received a full course of injections	Prophylactic Used		
		P.T.A.P.	A.P.T.	T.A.F.
Under 5 years	8,534	2,485	6,042	7
5—14 years	1,650	1,389	241	20
Totals—Under 15 years ..	10,184	3,874	6,283	27

Although Schick testing is not practised as a routine in connection with the greater part of the scheme, 887 primary tests were performed during the year. 2 gave a positive result and 885 were negative. These were carried out largely among hospital patients and staff, as were the 351 posterior tests which gave nil positive and 351 negative results.

The following table illustrates the progress of the immunisation scheme since its inception ;—

DIPHTHERIA IMMUNISATION.

Illustrating the progress of the immunisation scheme since its inception.

Number of Persons, in Age Groups, having had Full Course of Injections.

	1928 to 1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Total under 5 years at end of 1950. 38580
Under 1 year	1240	595	691	963	822	1071	915	740	503	1497	1761	2298	1767	2383	2540	3349	4582	4678	3863	
1 year ..	1776	743	805	1219	1328	1169	1228	965	912	1882	2411	3557	2927	4379	4202	3444	4747	3994	3222	
2 years ..	1310	613	788	1033	863	890	894	576	409	1295	1292	1567	342	1258	1517	574	1139	1134	837	
3 " ..	1155	733	668	1146	782	901	824	476	272	1065	1140	1504	168	554	1045	280	369	439	405	
4 " ..	1103	744	664	1333	801	906	856	475	238	1057	920	1710	145	342	600	202	220	189	207	
5 " ..	1138	921	997	1256	702	951	866	464	192	1226	473	1747	182	264	333	100	132	116	170	
6 " ..	1030	1015	987	1309	772	972	878	447	222	1241	379	2165	199	233	269	77	91	74	171	
7 " ..	915	1002	1076	1242	751	890	832	382	195	1215	236	1577	206	139	215	52	68	58	171	
8 " ..	850	876	1415	1150	810	857	711	408	179	1137	176	931	106	101	189	43	63	33	141	
9 " ..	705	852	1301	1241	804	678	583	336	162	1036	112	805	98	68	143	36	54	31	159	
10 " ..	461	711	1376	1002	923	698	613	308	137	1050	117	864	97	87	86	28	37	23	216	
11 " ..	404	486	1061	907	703	459	444	274	86	933	121	595	72	71	89	15	27	16	165	
12 " ..	380	345	630	825	772	419	395	218	43	1038	131	465	32	67	61	22	18	7	186	
13 " ..	201	280	438	820	615	424	396	259	39	502	100	436	33	50	36	11	15	5	145	
14 " ..	89	76	247	191	96	117	79	49	11	219	53	51	12	14	17	6	11	5	126	
15 years and over..	256	67	371	1201	917	444	240	102	105	309	221	298	139	210	155	112	108	47	60	
Totals 1928-50	13013	10059	13515	16838	12461	11846	10754	6479	3705	16702	9643	20570	6525	10220	11497	8351	11681	10849	10244	214952
																				Total 10-15 years. 34460
																				Total 5-10 years. 38303
																				Total under 5 years at end of 1950. 38580
																				Total 15 years & over 103609

The totals at the end of 1950 indicate only approximately the immune population, since no account is taken of any deaths that may have ensued amongst the immunised children.

TYPHOID AND PARATYPHOID FEVER.

12 notifications were received, the diagnosis being subsequently corrected in 10 cases. Thus 2 cases occurred and 1 was infected by *B. typhosus* and 1 by *B. paratyphoid*.

1 death occurred in a Mental Institution situated outside the City, of a woman aged 41 years, who had been an inmate for 13 years.

12 specimens of blood were submitted to the laboratory by medical practitioners from patients with illness simulating typhoid and none gave positive widal reactions.

CEREBRO-SPINAL FEVER.

34 notifications were received during the year. Of this number, 16 were from general medical practitioners, and these cases were removed to Monsall Hospital, 6 of which were confirmed subsequently. 17 cases were notified from and treated in other hospitals in the City, thus making a total of 23 confirmed cases of cerebro-spinal fever.

There were 5 deaths from this disease, giving a case mortality rate of 21.7 per cent., which compares with a rate of 31.0 per cent. in 1949.

As regards seasonal prevalence, 7 cases occurred in the first quarter of the year, 4 in the second, 3 in the third, and 9 in the last quarter.

Cases of Cerebro-Spinal Fever in Age Groups and Sexes, 1950.

Age Groups								No. of Cases Males	No. of Cases Females	Total
0—5 years	..	..	..	..	..	..	..	12	7	19
5—10	„	..	..	..	..	..	..	—	3	3
10—15	„	..	..	..	..	..	..	1	—	1
15—20	„	..	..	..	..	..	..	—	—	—
20—25	„	..	..	..	..	..	..	—	—	—
25—35	„	..	..	..	..	..	..	—	—	—
35 and over	..	..	..	..	..	..	..	—	—	—
All ages	..	..	..	..	..	..	..	13	10	23

POLIOMYELITIS AND POLIO-ENCEPHALITIS.

161 notifications of Poliomyelitis and Polio-encephalitis were received and of these 98 were confirmed. 5 deaths occurred.

The outbreak commenced towards the end of June. Prior to this, 6 cases occurred from the beginning of the year.

The following are the statistics :—

[illegible]

The distribution of cases was widely scattered over Manchester and no large number occurred in any one area, apart from Wythenshawe, where there were 18 cases.

The onset of one case occurred three weeks after the second injection for diphtheria. The injection was given in the left deltoid and paralysis developed in the right arm. When discharged from hospital the patient was completely recovered, with no signs of paralysis.

Particulars of the 98 cases are given in the following table :—

Case No.	Sex	Age	Ward	Onset	Notified	Site of Paralysis	Condition—April, 1951
2	F	9	Longsight	1st Jan.	11th Jan.	None	Removed outside City
4	M	2	St. Mark's	12th Jan.	27th Jan.	None	Active and well
6	F	3½	Blackley	22nd Jan.	27th Jan.	Left arm	Recovered, no paralysis
7	F	33	Moss Side East	22nd Jan.	3rd Feb.	Rt. arm and hand	No change, awaiting hospital treatment
10	F	5	Didsbury	13th March	27th March	Both legs	Good—slight stiffness in legs
13	F	7	Longsight	29th April	15th May	None	Recovered, no paralysis
14	F	13	Crumpsall	27th May	29th May	Died	—
17	F	8	Gorton South	20th June	24th June	Both legs	Slight improvement, wears calipers
18	M	11 wks	Blackley	15th June	29th June	Left leg and right ankle	Slight improvement, attending hospital
19	M	7	Wythenshawe	26th June	2nd July	Facial (left)	Slight improvement, attending school
20	F	9	Moston	29th June	3rd July	Died	—
21	F	8	Wythenshawe	7th June	4th July	Spine and both legs	Slight improvement, wears calipers
23	F	4	St. Luke's	27th June	10th July	Right leg	Recovered, no paralysis
24	F	6	Wythenshawe	9th July	15th July	Spine	Flat footed, attending school
25	M	14	Rusholme	9th July	17th July	Both legs	Slight improvement, wears calipers
26	M	3	Gorton South	14th July	18th July	None	Recovered, no paralysis
28	M	11	Wythenshawe	21st July	21st July	Right arm and leg	Slight improvement, attending school
29	F	14	St. Luke's	3rd July	13th July	None	Recovered, no paralysis
31	M	8	Didsbury	19th July	23rd July	None	Recovered, no paralysis
33	M	32	Moss Side West	22nd July	23rd July	None	Recovered, no paralysis
34	F	1½	Newton Heath	16th July	25th July	Right leg	Recovered, no paralysis
35	M	9	Blackley	24th July	24th July	None	Recovered, no paralysis
37	F	1	Cheetham	1st July	25th July	Right and left leg	Slight improvement, attending hospital
38	F	4	Blackley	11th July	25th July	Right and left leg	Recovered, no paralysis
39	M	10m.	Wythenshawe	16th July	26th July	Left leg	Slight improvement, wears calipers
40	F	13	Bradford	23rd July	24th July	None	Recovered, no paralysis
41	M	38	Moston	25th July	27th July	Left shoulder and right leg	Good progress—wears calipers
42	M	2½	Blackley	4th August	26th July	None	Recovered, no paralysis
43	F	12	New Cross	3rd August	4th August	None	Recovered, no paralysis
44	F	1½	St. Luke's	29th July	5th August	Back	Removed, address unknown
45	F	22	Bradford	7th August	9th August	None	Recovered, no paralysis
46	M	5	Wythenshawe	28th July	10th August	Right leg	Recovered, no paralysis
47	M	12	Bradford	8th August	10th August	Right side of palate	Improving, attending school

Case No	Sex	Age	Ward	Onset	Notified	Site of Paralysis	Condition—April, 1951
48	F	8	Wythenshawe	9th August	11th August	Left leg	Slight limp, attending school
49	M	3½	Wythenshawe	7th August	11th August	Right and left leg	Paralysis right leg, wears calipers
51	F	1½	Medlock Street	7th August	13th August	Left leg	Recovered, no paralysis
54	M	5	Newton Heath	3rd August	15th August	None	Recovered, no paralysis
55	M	1y 3 m	Newton Heath	11th August	16th August	Left arm, leg and spine	Recovered, no paralysis
56	M	1	Beswick	30th July	16th August	Both legs	In hospital, slight improvement
58	M	3	All Saints	15th August	16th August	None	Recovered, no paralysis
59	M.	24	Longsight	17th August	21st August	Left arm and shoulder	Good, hospital treatment
60	F	14	Openshaw	17th August	21st August	Back and legs	Back and lower limbs paralysed
61	M	7	Moss Side East	13th August	22nd August	None	Recovered, no paralysis
62	M	4	St. Clement's	14th August	21st August	Left arm	Left arm paralysed, receiving treatment
63	M	2y 2m	Beswick	3rd August	22nd August	Left leg	Slight paralysis of left leg
65	M	14	Didsbury	20th August	23rd August	Stiff neck	Recovered, no paralysis
66	M	2	Blackley	17th August	23rd August	Right leg	Slight improvement, wears calipers
67	M	7	Gorton North	16th August	22nd August	Both legs	Right leg paralysed, wears calipers
68	F	4	Medlock Street	21st August	24th August	Left leg	Slight improvement, receiving treatment
71	F	24	Rusholme	19th August	24th August	None	Recovered, no paralysis
72	F	3	Beswick	22nd August	27th August	Died	—
73	M	14	Harpurhey	25th August	30th August	None	Recovered, no paralysis
74	F	2½	Crumpsall	27th August	31st August	Left thigh	Slight improvement, shoes blocked
80	M	42	Blackley	31st August	5th Sept.	Died	—
82	M	5	Chorlton-cum-Hardy ..	4th Sept.	6th Sept.	None	Recovered, no paralysis
84	F	17	Gorton South	8th Sept.	10th Sept.	None	Recovered, no paralysis
85	M	19	Wythenshawe	6th Sept.	7th Sept.	None	Recovered, no paralysis
86	M	24	Wythenshawe	7th Sept.	8th Sept.	None	Recovered, no paralysis
88	F	14	Chorlton-cum-Hardy ..	7th Sept.	9th Sept.	Legs and back	Great improvement, massage treatment, attending school
90	F	16	Moss Side West	5th Sept.	9th Sept.	None	Recovered, no paralysis
91	M	6	Bradford	5th Sept.	15th Sept.	None	Recovered, no paralysis
92	M	2	Gorton North	8th Sept.	13th Sept.	Left leg	Slight limp, wears calipers
93	M	6	Ardwick	11th Sept.	14th Sept.	None	Recovered, no paralysis
95	F	2	Wythenshawe	12th Sept.	14th Sept.	Face	Slight paralysis, massage treatment
96	M	10 m.	Wythenshawe	13th Sept.	13th Sept.	Right arm	Recovered, no paralysis
98	M	11	Chorlton-cum-Hardy ..	4th Sept.	13th Sept.	Right hand, arm and leg	Slight limp, massage treatment
99	M	14	St. Mark's	12th Sept.	13th Sept.	None	Recovered, no paralysis
101	M	1½	Openshaw	15th Sept.	18th Sept.	Right shoulder	Recovered, no paralysis
103	F	1	Harpurhey	14th Sept.	19th Sept.	Both legs	Improving, still in hospital
104	F	4y 11m	Cheetham	11th Sept.	18th Sept.	Both legs	Recovered, no paralysis
105	F	25	Crumpsall	17th Sept.	20th Sept.	Left hip and right arm	Slight paralysis, massage treatment
106	M	21	Moss Side East	16th Sept.	19th Sept.	Arms and left leg	Slight improvement, massage treatment daily
107	M	6 ms.	Blackley	16th Sept.	21st Sept.	Right thigh and left leg	Slight improvement, massage treatment daily

Case No.	Sex	Age	Ward	Onset	Notified	Site of Paralysis	Condition—April, 1951
108	M	1 y 3 m	Wythenshawc	16th Sept.	21st Sept.	Left arm and shoulder	Slight improvement, massage treatment daily
111	M	4	New Cross	22nd Sept.	22nd Sept.	Left side of face	Paralysis of face
112	F	4½	New Cross	16th Sept.	21st Sept.	Right arm and shoulder	Recovered, no paralysis
115	M	15	Rusholme	23rd Sept.	25th Sept.	Right ankle	Recovered, no paralysis
116	M	1	Blackley	18th Sept.	26th Sept.	Right ankle, knee and hip	Slight paralysis, calipers right leg
119	M	28	Wythenshawc	26th Sept.	28th Sept.	Right arm	Slight paralysis, wears splints
121	M	3	All Saints	29th Sept.	30th Sept.	Right leg	Slight paralysis, wears calipers
122	F	18	Levenshulme	2nd Oct.	2nd Oct.	Died	—
124	F	9	Ardwick	1st Oct.	2nd Oct.	Lower jaw bone	Recovered, no paralysis
125	M	4	Wythenshawc	1st Oct.	2nd Oct.	None	Recovered, no paralysis
126	F	30	Longsight	22nd Sept.	4th Oct.	Left leg	Slight paralysis, wears calipers
128	M	1	Moss Side West	30th Sept.	4th Oct.	Left leg	Slight improvement, wears calipers
129	F	1½	Gorton North	22nd Sept.	5th Oct.	Left arm and legs	Paralysis, in hospital
130	F	5	Miles Platting	26th Sept.	5th Oct.	Left leg	Recovered, no paralysis
131	M	26	Moston	1st Oct.	5th Oct.	?	In hospital, unavailable
132	F	19	Didsbury	5th Oct.	6th Oct.	None	Recovered, no paralysis
134	M	1y10m	Wythenshawc	8th Oct.	9th Oct.	Left leg	Recovered, no paralysis
136	M	5	Longsight	4th Oct.	10th Oct.	Right foot	Recovered, no paralysis
138	M	8	Wythenshawc	7th Oct.	10th Oct.	Face	Slight paralysis, improving
140	M	6	Blackley	7th Oct.	11th Oct.	None	Recovered, no paralysis
142	F	7	Wythenshawc	5th Oct.	13th Oct.	Left arm, leg and neck	Slight improvement, massage treatment
145	F	2	Moss Side West	19th Oct.	24th Oct.	Right leg	Recovered, no paralysis
146	M	1	Miles Platting	1st Oct.	24th Oct.	None	Recovered, no paralysis
151	M	8	All Saints	7th Nov.	11th Nov.	Left leg and shoulder	Recovered, no paralysis
153	M	1y4m	Openshaw	25th Nov.	27th Nov.	Left leg	Paralysed, in hospital

Table showing the distribution of cases in Wards,
and health of patients in April, 1951.

WARD	Notifications		Confirmed Cases		Paralytic		Non-Paralytic		Deaths	Condition—April, 1951			
										Paralytic		Recovered No Paralysis	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Unob- tained
All Saints	5	2	3	—	2	—	1	—	—	1	2	—	—
Ardwick	2	1	1	1	—	—	1	—	—	—	1	1	—
Beswick	3	2	2	1	—	—	—	1	—	—	—	—	1
Blackley	10	4	8	2	5	2	3	—	—	—	4	1	1
Bradford	5	3	2	2	1	—	1	—	—	—	1	2	—
Cheetham	1	2	—	2	—	—	—	—	—	1	—	1	—
Chorlton-cum-Hardy	3	3	2	1	1	—	1	—	—	1	1	—	—
Collegiate Church	1	2	—	—	—	—	—	—	—	—	—	—	—
Collyhurst	—	—	—	—	—	—	—	—	—	—	—	—	—
Crumpsall	2	4	—	3	—	—	—	1	—	2	—	—	1
Didsbury	3	2	2	2	1	—	1	—	—	1	2	1	—
Exchange	—	—	—	—	—	—	—	—	—	—	—	—	—
Gorton North	2	2	2	1	1	—	1	—	—	1	—	—	—
Gorton South	3	2	1	2	—	—	1	—	—	1	1	—	—
Harpurhey	1	2	1	1	—	—	1	—	—	1	1	—	—
Levenshulme	—	1	—	1	—	—	—	1	—	—	—	—	1
Longsight	4	3	2	3	2	—	—	—	—	1	1	1	1
Medlock Street	—	2	—	2	—	—	—	—	—	1	—	—	—
Miles Platting	2	2	1	1	—	—	1	—	—	—	1	1	—
Moston	2	2	2	1	2	—	—	—	—	—	—	—	2
Moss Side East	3	1	2	1	1	—	1	—	—	—	1	—	—
Moss Side West	3	2	2	2	1	—	1	—	—	1	2	—	—
New Cross	5	3	1	2	1	—	—	—	—	—	—	—	—
Newton Heath	3	2	2	1	1	—	1	—	—	—	2	1	—
Openshaw	2	3	2	1	2	—	—	—	—	1	1	—	—
Oxford	—	—	—	—	—	—	—	—	—	—	—	—	—
Rusholme	2	1	2	1	—	—	1	—	—	—	1	—	—
St. Ann's	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Clement's	1	—	1	—	1	—	—	—	—	—	—	—	—
St. George's	2	1	—	—	—	—	—	—	—	—	—	—	—
St. John's	—	—	—	—	—	—	—	—	—	—	—	—	—
St. Luke's	—	4	—	3	—	2	—	—	—	—	—	2	1
St. Mark's	—	3	2	—	—	—	2	—	—	—	2	—	—
St. Michael's	2	—	—	—	—	—	—	—	—	—	—	—	—
Withington	—	2	—	—	—	—	—	—	—	—	—	—	—
Wythenshawe	13	11	13	5	12	—	—	—	—	5	6	—	—
Total	87	74	56	42	37	31	19	11	4	25	30	17	8

ENCEPHALITIS LETHARGICA.

No notifications of acute encephalitis lethargica were received in 1950.
3 deaths were registered in which late effects of encephalitis lethargica were declared to be a contributory cause.

PNEUMONIA.

There were 696 cases of pneumonia notified during the year, consisting of—

Primary Pneumonia	Lobar	481	} 696
	Lobular	107	
	Unclassified	58	
Influenzal Pneumonia	.. .. .	50	

All these cases were investigated by the Special Investigators and 543 were treated in hospital.

There were 341 deaths, consisting of 87 lobar, 220 lobular and 34 unclassified.

In addition there were 27 deaths from influenza associated with pneumonia.

MEASLES AND GERMAN MEASLES.

Cases notified	1950				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
MEASLES—					
By Doctors	193	934	2,056	5,723	8,906
„ Others	27	133	253	479	892
Total	220	1,067	2,309	6,202	9,798
GERMAN MEASLES—					
By Doctors	83	109	92	75	359
„ Others	3	4	3	6	16
Total	86	113	95	81	375

WHOOPIING COUGH.

Whooping Cough became compulsorily notifiable in October, 1939. Before this date the source of notification was solely from the schools.

Whooping cough notifications during 1950 :—

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1950	783	1,127	1,312	965	4,187

Incidence of Whooping Cough in Manchester at Age Periods 0—5 and 5 Years and over.

Disease	Under 5 years	5 years and over	Total
Whooping Cough	3,173	1,014	4,187

MALARIA.

No notification was received.

ANTHRAX.

No case of anthrax came to the notice of the Department.

DYSENTERY.

641 notifications of dysentery were received, of which 566 were confirmed as relating to true cases ; no deaths occurred.

Of the 566 cases, 533 proved to be associated with the presence of bacilli of the Sonne type, 1 with other specific organisms, and 32 clinical cases.

TUBERCULOSIS SERVICE.

This section of the Health Department, under the control of the local authority, has continued to administer the arrangements for prevention, care and after-care, in relation to the tuberculous patient. The clinical aspects of the disease are the responsibility of the Manchester Regional Hospital Board, but the two services are complementary and both departments work in the closest co-operation in the same building.

The following table analyses the cases on the Notification Register for 1950 :—

	Respiratory	Non-respiratory	Total
Active cases	2,848	570	3,418
Arrested cases	1,684	576	2,260
Total	4,532	1,146	5,678

Number per thousand of the population 8.06

On the 31st December, 1950, 766 patients were receiving treatment in institutions, and 166 were awaiting admission. This latter figure is a reduction of 156 on the comparable one for 1949.

The shortage of beds has its repercussions on the prevention, care and after-care work. The problem of the chronic infectious case living in overcrowded dwellings, and occasionally in hostels and lodging houses, is a source of constant anxiety. In these circumstances the calls for assistance have greatly increased, and the section has played its part in alleviating many of the social difficulties associated with the disease.

Tuberculosis Health Visiting.

The visiting staff comprises 14 Tuberculosis Health Visitors and 2 Tuberculosis Inspectors. Each visitor is responsible for a definite area in the City, and follows up the primary investigation by routine visiting. In addition to reporting on the home circumstances, the visitor advises the family on infection and hygiene and, if necessary, arranges for the loan of bed and bedding to secure the isolation of the patient. She arranges for the examination of contacts and informs the Care Section of any special needs. She can consult the Chest Physician on any aspect of a case and acts as a liaison officer between the Chest Clinic and the tuberculous household.

The Tuberculosis Health Visitors do rota duty in the Chest Clinic, assist at the Artificial Pneumothorax Refill sessions, and carry out certain ambulance duties ; the Regional Hospital Board pay an agreed amount for their services.

The following table gives a brief summary of the work of the visiting staff for the year under review :—

Primary investigations	986
Routine domiciliary visits	18,375
Post-death visits	1,039
Special visits	1,576
Ambulance journeys	157

Home Nursing.

The nursing of seriously ill tuberculous patients in their homes is the responsibility of one nurse who covers the whole of the City. This work is exceptionally heavy during the winter months. The work is carried out on a three-monthly rota basis and is shared in turn by each member of the nursing staff. The following is a record of the work during the past three years :—

Year	1948	1949	1950
Patients	65	90	119
Visits	1,312	1,724	2,142

The usual nursing requisites are available on loan to patients being nursed at home, and 309 articles were loaned during 1950. These included bed-rests, air-rings, air-beds, urinals, macintosh sheeting, etc.

Sputum boxes and sputum flasks are issued free to patients, and the fumigation of rooms and bedding is a part of the service. The figures for the year are as follows :—

Sputum boxes issued	49,266
Sputum flasks issued	120
Premises disinfected	807
Bedding disinfected	145

Grants in Aid.

During 1950 the National Assistance Board increased their scales of assistance and the Health Committee in turn amended the Manchester scale for assessment of need. This is now as follows :—

	Minimum requirements	
	s.	d.
One adult (single or widow)	43	3
One parent and one child	55	0
Two parents	66	6
Two parents and one child	78	3
(Add 11s. 9d. for each additional child.)		

Number of patients assisted with—

(a) Food grants	136
(b) Loans of bed and bedding	122
(c) Loans of nursing requisites	112

Housing.

Many applications are made to the Department for assistance in securing rehousing, and only after careful consideration of all the circumstances are recommendations for priority made on medical grounds. Isolation of an infectious patient is the primary reason for a recommendation, but environment and housing conditions are also taken into account when assessing applications.

Housing applications :—

Cases reviewed	381
Cases recommended	210
Decision deferred	16
Families rehoused during the year	101

In Manchester the preventive, care and after-care work in relation to the tuberculous patient commences with the notification of a case and does not cease until the patient recovers, leaves the area or dies.

Staff experienced in social problems is always available at the Chest Clinic to advise and assist patients and their families and this service is extensively used. It is the duty of the Section to see that every tuberculous household is made aware of the financial assistance, and help in kind, which is available through the various official and voluntary organisations in the City.

The following report has been prepared by Dr. M. J. Greenberg, Consultant Chest Physician, whose appointment is a joint one made by the Manchester Regional Hospital Board and the Manchester Health Committee :—

NOTIFICATION.

It is gratifying to record that in the year 1950 the new cases of pulmonary tuberculosis notified show a substantial reduction on the figure for the previous year, being 737 as compared with 899 in 1949.

The non-respiratory cases notified were 132, as compared with 154 in 1949. In both groups new low figures are recorded for Manchester.

Respiratory Tuberculosis.

In males, the major decreases occurred in the 20—24, 25—34 and 55—64 age groups, whilst in the female age group 25—34 there was also a marked reduction in the cases notified.

Non-Respiratory Tuberculosis.

The number of notified cases in males is increased by 4 from last year, but the female notifications show a reduction of 26 on the 1949 figure ; the 25—34 age group showing 14 fewer cases than in 1949.

MORTALITY.

Respiratory Tuberculosis.

There has been a decrease of 7 in the total deaths. The male deaths show an increase of 4, but those for females are reduced by 11.

Non-Respiratory Tuberculosis.

There has been an increase of 9 in the total deaths, 4 in the male group and 5 in that for females. The age group most affected was 35-44 which showed an increase of 6 over the figures for 1949.

The number of deaths of non-notified cases of respiratory tuberculosis was 24—5.8 per cent.

The number of deaths of non-notified cases of non-respiratory tuberculosis was 5—10.6 per cent.

The percentage of deaths of non-notified cases of all forms of tuberculosis was 6.3.

There were, in addition, 3 deaths of non-notified cases of respiratory tuberculosis and 1 death of a non-notified case of non-respiratory tuberculosis, outside Manchester, which were adjudged by the Registrar-General to be properly referable to this area.

The bed bureau inaugurated by the Manchester Regional Hospital Board during the year has helped materially in reducing the list of patients awaiting admission to sanatoria, and the waiting time for men and women is now approximately five months, as compared with 11 months and seven months respectively a year ago. Nevertheless, the shortage of sanatorium beds remains a great problem and it is very difficult to decide the claims for priority of admission between early treatable cases and more chronic cases whose admission is required because of conditions in the home.

Domiciliary Active Treatment.

There has been an increase in the number of patients who have received this form of treatment and, during the year, 28 cases were carrying out a sanatorium regime in their homes, after an initial few days in Baguley Sanatorium where collapse therapy was commenced. The pressure on beds is thus eased a little and subsequent admission to sanatorium is sometimes unnecessary.

Daily injections of the drug Streptomycin have been prescribed in a number of cases and the general practitioner, our clinical nurse and the district nurse have co-operated in the administration. This treatment usually shortens the length of stay subsequently required in a sanatorium.

Rehabilitation.

The special interviewing panels where patients are seen at the Clinic by the Chest Physician and the Disablement Rehabilitation Officer have continued throughout the year and 36 cases attended; 14 were subsequently placed in employment, 6 found work themselves, 5 were referred to a Training and Rehabilitation Centre and, on the 31st December, 1950, 4 were unfit and 7 were unemployed.

During the year 137 Forms D.P.1.X. have been completed for the local office of the Ministry of Labour.

Attendances at the Clinic.

5,318 persons were examined for the first time at the Chest Clinic during the year, an increase of 664 over the total for 1949. Attendances numbered 23,367, and this figure shows an increase of 3,512 over 1949.

X-ray examinations numbered 12,872, an increase of 2,560 over the previous year. This number is likely to increase still further when new X-ray facilities become available, as the use of X-rays in the diagnosis and treatment of pulmonary tuberculosis is of first importance.

B.C.G.

It is proposed to make a start on vaccination by B.C.G. in 1951, and a report on this procedure will be given in the Annual Report for that year.

The statistics for the year are shown in the following tables :—

TABLE 1.
Primary Notifications of and Deaths from Tuberculosis.
Comparative Figures, 1930—1950.
(Rates per Thousand of the Population.)

Year	Primary Notifications						General Death Rate, M/cr.	Death Rate All Respi- ratory Diseases except Tuber- culosis (M/cr.)	Death Rates, Tuberculosis Manchester						Death Rate, Respi- ratory Tuber- culosis, England and Wales
	Respiratory			Non-Respiratory					Respiratory			Non-Respiratory			
	M. Rate	F. Rate	Per- sons Rate	M. Rate	F. Rate	Per- sons Rate			M. Rate	F. Rate	Per- sons Rate	M. Rate	F. Rate	Per- sons Rate	
1930	1.98	1.39	1.67	0.68	0.51	0.59	12.92	2.10	1.46	0.94	1.18	0.21	0.22	0.22	0.739
1931	1.89	1.32	1.59	0.68	0.57	0.62	13.79	2.59	1.42	0.84	1.12	0.18	0.17	0.17	0.719
1932	1.60	1.20	1.39	0.55	0.47	0.51	13.21	1.98	1.23	0.80	1.00	0.18	0.13	0.16	0.666
1933	1.75	1.06	1.39	0.42	0.38	0.40	13.65	1.97	1.29	0.82	1.04	0.13	0.13	0.13	0.669
1934	1.69	1.06	1.36	0.47	0.34	0.40	12.63	1.47	1.39	0.67	1.01	0.17	0.15	0.16	0.615
1935	1.59	1.00	1.28	0.40	0.38	0.39	13.53	1.73	1.21	0.72	0.95	0.13	0.12	0.13	0.587
1936	1.47	1.07	1.26	0.43	0.35	0.39	13.72	1.83	1.13	0.70	0.90	0.15	0.13	0.14	0.564
1937	1.73	1.03	1.36	0.52	0.46	0.49	13.87	1.70	1.14	0.72	0.92	0.18	0.14	0.16	0.566
1938	1.52	0.98	1.24	0.41	0.36	0.38	12.61	1.32	1.07	0.66	0.86	0.14	0.13	0.14	0.516
1939	1.49	0.96	1.21	0.40	0.36	0.38	13.39	1.30	1.10	0.64	0.86	0.16	0.13	0.14	0.522
1940	1.95	1.13	1.51	0.41	0.36	0.38	17.98	4.00	1.43	0.78	1.09	0.16	0.13	0.15	0.588
1941	2.12	1.16	1.61	0.45	0.41	0.43	16.64	2.81	1.45	0.84	1.13	0.19	0.19	0.19	0.602
1942	1.78	1.22	1.48	0.37	0.41	0.39	14.72	2.13	1.23	0.76	0.99	0.14	0.12	0.13	0.542
1943	1.78	1.25	1.50	0.41	0.49	0.45	15.50	2.64	1.14	0.71	0.91	0.16	0.15	0.16	0.557
1944	1.62	1.14	1.37	0.33	0.36	0.34	14.20	2.04	0.95	0.66	0.80	0.13	0.10	0.11	0.524
1945	1.73	1.23	1.46	0.34	0.31	0.32	14.41	2.33	1.00	0.62	0.80	0.16	0.10	0.13	0.515
1946	1.56	0.89	1.20	0.28	0.22	0.25	13.52	2.09	0.92	0.48	0.69	0.08	0.12	0.10	0.468
1947	1.41	0.91	1.15	0.21	0.18	0.19	13.79	2.11	0.88	0.46	0.66	0.11	0.08	0.09	0.473
1948	1.50	1.01	1.24	0.19	0.21	0.20	12.27	1.80	0.89	0.50	0.69	0.06	0.08	0.07	0.440
1949	1.58	1.02	1.28	0.20	0.24	0.22	12.91	2.10	0.76	0.45	0.60	0.06	0.04	0.05	0.403
1950	1.28	0.84	1.05	0.21	0.17	0.19	12.77	1.86	0.77	0.42	0.58	0.07	0.06	0.07	0.321

It has been the practice in Manchester, in previous annual reports, to include amongst the primary notifications those cases which had been "transferred in" from outside areas. These tables have now been amended and only those patients who have been diagnosed and notified for the first time are included in this report.

TABLE 3. Primary Notifications of, and Deaths from, Respiratory Tuberculosis, 1930-1950.
(Manchester Figures—52 Weeks).

			Age Groups.																														NOTIFICATIONS			DEATHS															
			0-				1-4				5-9				10-14				15-19				20-24				25-34				35-44								45-54				55-64				65				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	M.	F.	Total							
Notifications, 1930 ..	Deaths, ..	2	—	3	2	8	3	2	3	27	27	5	1	18	19	1	8	59	87	30	58	63	115	52	58	126	128	93	103	141	80	89	60	153	49	127	41	88	34	98	31	23	13	24	9	708	555	1263	524	374	898
Notifications, 1931 ..	Deaths, ..	—	1	2	2	4	6	2	2	36	38	3	4	25	36	3	7	65	75	24	45	79	102	44	68	117	131	94	100	126	67	99	51	134	51	128	37	84	27	91	20	20	5	29	6	690	539	1229	519	342	861
Notifications, 1932 ..	Deaths, ..	—	1	—	2	13	11	5	6	18	14	—	4	7	21	1	9	53	90	18	36	58	94	43	71	112	113	69	83	117	73	85	50	121	49	129	36	61	12	73	16	16	7	19	11	576	485	1061	442	324	766
Notifications, 1933 ..	Deaths, ..	2	1	1	1	5	6	6	4	9	8	2	2	9	18	2	7	50	72	21	48	78	87	40	67	128	115	83	78	116	55	104	57	144	40	106	41	66	18	81	17	19	7	15	8	626	427	1053	461	330	791
Notifications, 1934 ..	Deaths, ..	—	—	3	1	5	3	5	3	9	10	3	3	14	21	2	4	49	76	20	30	69	88	50	56	112	105	80	69	108	59	105	39	123	34	117	35	82	19	79	21	30	10	29	7	601	425	1026	493	268	761
Notifications, 1935 ..	Deaths, ..	3	—	4	—	4	4	—	2	14	19	3	4	18	11	—	4	43	56	17	40	57	87	37	57	105	91	78	75	115	57	87	39	120	44	116	37	67	22	59	18	14	6	27	10	560	397	957	428	286	714
Notifications, 1936 ..	Deaths, ..	—	1	—	1	2	3	2	1	8	9	—	5	9	23	2	10	40	63	19	40	53	103	30	53	99	92	66	60	95	70	85	43	100	30	88	32	84	21	80	23	24	8	24	7	514	423	937	396	275	671
Notifications, 1937 ..	Deaths, ..	1	—	1	1	2	9	4	3	19	8	2	1	9	12	—	2	51	73	20	39	57	85	24	53	106	92	60	68	115	56	81	51	121	27	89	24	87	26	74	26	33	12	40	11	601	400	1001	395	279	674
Notifications, 1938 ..	Deaths, ..	4	2	1	—	4	3	2	1	14	13	—	2	13	14	2	4	52	64	14	33	60	78	21	57	85	97	54	76	90	51	59	36	95	34	103	28	81	21	90	14	28	4	24	6	526	381	907	370	257	627
Notifications, 1939 ..	Deaths, ..	1	2	—	1	4	4	3	—	9	7	—	1	8	10	1	4	53	71	22	31	40	81	27	46	81	73	53	77	106	54	69	30	91	18	77	24	73	23	85	16	26	14	28	6	492	357	849	365	236	601
Notifications, 1940 ..	Deaths, ..	3	—	2	1	2	2	—	1	10	2	—	1	6	13	1	4	67	71	27	35	47	82	18	39	102	93	72	70	107	51	96	51	120	31	90	27	71	20	74	17	37	6	40	12	572	371	943	420	258	678
Notifications, 1941 ..	Deaths, ..	3	—	—	—	11	3	3	2	3	5	1	2	15	13	1	2	53	93	20	42	61	65	20	46	114	72	58	65	99	53	71	44	123	34	94	27	90	19	96	24	28	11	48	13	600	368	968	412	267	679
Notifications, 1942 ..	Deaths, ..	—	—	1	—	3	2	—	1	13	4	1	1	8	10	—	3	55	71	12	29	53	86	22	45	76	108	50	68	111	55	72	40	78	27	80	24	82	22	80	22	26	4	31	10	505	389	894	349	243	592
Notifications, 1943 ..	Deaths, ..	—	1	—	1	6	5	1	1	5	3	—	—	9	12	—	4	50	77	7	32	52	86	16	40	76	113	43	48	113	47	68	37	87	24	78	31	84	16	82	21	20	14	27	9	502	398	900	322	224	546
Notifications, 1944 ..	Deaths, ..	1	1	—	—	13	5	—	3	11	4	—	2	6	20	1	1	46	64	6	28	47	77	15	44	65	92	36	58	84	47	51	37	90	27	74	23	74	22	64	13	33	11	28	7	470	370	840	275	216	491
Notifications, 1945 ..	Deaths, ..	1	2	1	2	11	8	1	1	3	5	—	2	12	15	1	4	41	70	4	27	54	109	18	42	89	98	43	54	101	44	45	24	89	33	77	19	76	15	63	18	31	6	40	10	508	405	913	293	203	496
Notifications, 1946 ..	Deaths, ..	3	2	3	—	6	6	—	—	13	10	1	1	12	9	—	1	25	51	5	19	66	77	17	34	103	82	41	47	75	38	46	23	102	25	72	22	58	10	64	13	27	5	41	10	490	315	805	290	170	460
Notifications, 1947 ..	Deaths, ..	1	2	2	2	12	12	2	3	14	18	—	—	10	18	1	—	52	67	5	16	53	74	14	28	83	61	40	56	57	35	48	29	91	25	82	15	64	10	67	12	20	7	22	6	457	329	786	283	167	450
Notifications, 1948 ..	Deaths, ..	2	2	2	—	17	16	3	2	9	11	—	2	9	13	—	1	43	63	7	21	47	74	17	38	78	102	41	47	92	46	56	34	94	17	77	18	74	13	69	12	26	15	20	10	491	372	863	292	185	477
Notifications, 1949 ..	Deaths, ..	5	2	—	1	18	11	2	2	15	13	—	—	17	17	—	—	39	64	4	14	61	87	17	29	90	103	22	52	83	39	57	25	82	22	58	22	78	12	57	13	32	9	34	9	520	379	899	251	167	418
Notifications, 1950 ..	Deaths, ..	4	2	—	—	21	11	—	1	11	7	1	—	16	14	—	1	33	59	3	13	40	79	9	24	71	71	31	51	67	29	49	30	75	27	66	21	53	11	63	11	34	2	31	4	425	312	737	255	156	411

TABLE 4.

50B

Primary Notifications of, and Deaths from, Non-Respiratory Tuberculosis, 1930-1950

(Manchester Figures—52 Weeks).

Age Groups.

	Age Groups.																																NOTIFICATIONS						DEATHS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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TABLE 2.

**Summary of Notifications of Tuberculosis during the Period from
the 1st January, 1950, to the 31st December, 1950, in the
County Borough of Manchester.**

Age Periods	FORMAL NOTIFICATIONS													
	Number of Primary Notifications of New Cases of Tuberculosis													
	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Respiratory, Males	4	6	15	11	16	33	40	71	67	75	53	28	6	425
Respiratory, Females	2	6	5	7	14	59	79	71	29	27	11	2	—	312
Non-Respiratory, Males	1	2	14	12	6	9	5	8	7	3	2	1	—	70
Non-Respiratory, Females	—	—	6	7	9	14	5	7	6	3	2	3	—	62

New Cases of Tuberculosis Coming to the Knowledge of the Medical Officer of Health during the above-mentioned Period, otherwise than by Formal Notification.

[illegible]

Totals	(A)	<u>56</u>
	(B)	<u>44</u>
	(C)	<u>7</u>
	(D)	<u>10</u>

TABLE 5.
Primary Notifications—Respiratory Tuberculosis, 1950.
Age Incidence and Classification of Cases seen by Chest Physicians.
Ministry of Health Circular 83/47 (1).

Males.

Age Group	Respiratory A				Respiratory B				Total cases seen by Chest Physicians	Cases not classified for various reasons (2)	Total primary notifications
	1	2	3	Total	1	2	3	Total			
Under 1 yr.	2	1	—	3	—	—	1	1	4	—	4
1—2 yrs.	5	—	—	5	—	—	—	—	5	1	6
2—4 yrs.	12	2	—	14	—	—	1	1	15	—	15
5—9 yrs.	8	—	—	8	1	1	—	2	10	1	11
10—14 yrs.	8	2	2	12	—	—	—	—	12	4	16
15—19 yrs.	14	4	2	20	1	7	3	11	31	2	33
20—24 yrs.	7	9	—	16	2	17	5	24	40	—	40
25—34 yrs.	14	14	—	28	1	30	8	39	67	4	71
35—44 yrs.	5	18	2	25	2	26	10	38	63	4	67
45—54 yrs.	8	8	5	21	2	28	19	49	70	5	75
55—64 yrs.	4	7	1	12	—	14	21	35	47	6	53
65— yrs.	3	8	2	13	—	9	7	16	29	5	34
Totals ..	90	73	14	177	9	132	75	216	393	32	425
% 1950	22·9	18·6	3·5	45·0	2·3	33·6	19·1	55·0	100%		
% 1949	17·8	19·1	5·6	42·6	4·5	31·6	21·3	57·4	100%		

Females.

Under 1 yr.	1	—	1	2	—	—	—	—	2	—	2
1—2 yrs.	3	—	1	4	—	—	—	—	4	2	6
2—4 yrs.	4	—	1	5	—	—	—	—	5	—	5
5—9 yrs.	6	—	—	6	—	—	—	—	6	1	7
10—14 yrs.	10	3	1	14	—	—	—	—	14	—	14
15—19 yrs.	18	14	4	36	2	14	6	22	58	1	59
20—24 yrs.	16	13	1	30	3	26	18	47	77	2	79
25—34 yrs.	9	13	2	24	2	23	18	43	67	4	71
35—44 yrs.	2	5	1	8	—	11	5	16	24	5	29
45—54 yrs.	8	2	2	12	—	4	8	12	24	3	27
55—64 yrs.	1	2	1	4	—	4	1	5	9	2	11
65— yrs.	—	—	—	—	—	—	1	1	1	1	2
Totals ..	78	52	15	145	7	82	57	146	291	21	312
% 1950	26·8	17·9	5·1	49·8	2·4	28·2	19·6	50·2	100%		
% 1949	22·1	22·6	6·1	50·8	3·3	26·0	19·8	49·2	100%		

CLASSIFICATION TABLE—NOTES.

- (1) CLASS A.—Cases in which tubercle bacilli have never been discovered in any exudate, excrement, discharge or tissue.
CLASS B.—Cases in which tubercle bacilli have been found at any time in any exudate, excrement, discharge or tissue.
GROUP 1.—Cases with slight constitutional disturbance.
GROUP 3.—Cases with profound systematic disturbance or constitutional deterioration and with marked impairment of function, either local or general.
GROUP 2.—All cases which cannot be placed in Groups 1 and 3.
- (2) In this column are included cases (a) where death occurred immediately after notification and before the Chest Physician had opportunity to see the patient ; (b) Service cases ; (c) cases in mental hospitals, etc., etc.

TABLE 7.

Sources of Notification of Tuberculosis during 1950.

Source	Respiratory	Non-Respiratory	Totals
Crumpsall Hospital	40	4	44
Withington Hospital	42	14	56
Booth Hall Hospital	38	18	56
Monsall Hospital	3	6	9
Manchester Royal Infirmary	20	26	46
Ancoats Hospital	21	3	24
Manchester and Salford Skin Hospital	—	5	5
St. Mary's Hospital	—	—	—
Northern Hospital	1	1	2
Victoria Memorial Jewish Hospital	4	1	5
Royal Manchester Children's Hospital, Pendlebury . .	9	7	16
Do. do. do. do. Gartside St.	1	3	4
Duchess of York Hospital for Babies	10	3	13
Manchester Hospital for Consumption	—	—	—
Mental Hospitals	21	1	22
H.M. Forces	15	—	15
Ministry of Pensions	3	1	4
Private Practitioners	422	17	439
Abergele Sanatorium	8	1	9
Chest Clinic Staff	64	10	74
Baguley Sanatorium and E.M.S. Hospital	4	—	4
Other sources	11	11	22
Total	737	132	869

TABLE 8.
TUBERCULOSIS.
Primary Notifications and Deaths—1950.
Classification in Municipal Wards.

Ward	Estimated popula- tion	Persons per acre	NOTIFICATIONS						DEATHS (all forms)	
			Respiratory		Non- respiratory		Total all forms	Rate per 1,000 pop.	No. Man- chester figures)	Rate per 1,000 pop.
			M.	F.	M.	F.				
All Saints'	13,195	43·98	15	12	2	2	31	2·35	16	1·21
Ardwick	18,388	43·16	18	7	1	2	28	1·52	19	1·03
Beswick	22,058	86·84	12	6	8	—	26	1·18	12	0·54
Blackley	28,805	24·87	16	10	3	3	32	1·11	21	0·73
Bradford	26,030	32·94	10	7	—	2	19	0·73	14	0·54
Cheetham	22,632	40·78	13	12	1	1	27	1·19	14	0·62
Chorlton-cum-Hardy	42,717	25·64	24	11	2	1	38	0·89	16	0·37
Collegiate Church	8,343	18·71	9	11	1	—	21	2·52	6	0·72
Collyhurst	12,630	54·44	11	10	—	2	23	1·82	11	0·87
Crumpsall	24,917	11·31	13	4	—	1	18	0·72	8	0·32
Didsbury	31,720	13·47	20	9	5	2	36	1·13	19	0·60
Exchange	87	1·43	1	—	—	—	1	11·49	—	—
Gorton North	22,367	37·03	11	6	1	1	19	0·85	5	0·22
Gorton South	26,952	42·92	14	4	1	—	19	0·70	19	0·70
Harpurhey	18,900	54·94	8	13	1	2	24	1·27	12	0·63
Levenshulme	20,135	33·23	10	6	3	—	19	0·94	7	0·35
Longsight	26,140	44·08	11	6	2	1	20	0·76	12	0·46
Medlock Street	15,774	74·41	9	7	4	2	22	1·39	8	0·51
Miles Platting	14,939	47·73	4	11	2	—	17	1·14	7	0·47
Moston	29,912	24·30	20	17	2	5	44	1·47	12	0·40
Moss Side East	17,092	70·92	10	15	3	3	31	1·81	11	0·64
Moss Side West	19,750	73·97	20	12	3	2	37	1·87	17	0·86
New Cross	12,987	42·86	11	8	—	3	22	1·69	13	1·00
Newton Heath	21,323	21·22	8	7	1	2	18	0·84	19	0·89
Openshaw	18,894	39·20	14	9	3	1	27	1·43	11	0·58
Oxford	197	1·18	3	1	—	—	4	20·30	3	15·23
Rusholme	20,600	25·56	7	15	1	4	27	1·31	16	0·78
St. Ann's	18	0·33	—	—	—	—	—	—	—	—
St. Clement's	773	4·27	1	—	—	—	1	1·29	1	1·29
St. George's	16,539	62·18	8	11	2	6	27	1·63	10	0·60
St. John's	1,573	7·90	1	—	—	—	1	0·64	1	0·64
St. Luke's	20,595	65·17	26	6	3	2	37	1·80	23	1·12
St. Mark's	19,849	58·38	13	13	1	3	30	1·51	9	0·45
St. Michael's	11,813	48·61	1	4	2	—	7	0·59	2	0·17
Withington	50,400	27·38	28	11	3	4	46	0·91	35	0·69
Wythenshawe	45,456	8·17	24	31	8	5	68	1·50	48	1·06
Unclassified	—	—	1	—	1	—	2	—	—	—
CITY OF MANCHESTER ..	704 500	25·85	425	312	70	62	869	1·23	457	0·65

This table is based on the municipal wards prior to their reconstitution during the year. The report for 1951 will relate to the new ward distribution.

The population figures quoted above are not strictly accurate, being based on the last census figures (1931). Removals on account of slum clearance, war damage, etc., will have disturbed the balance, but the figures serve to give a general picture of the variation in incidence according to the character of the ward.

TABLE 9.

Primary Notifications Respiratory Tuberculosis—1950.
Occupation and Social Classification.*

MALES					OCCUPATIONAL GROUP										SINGLE WOMEN					MARRIED WOMEN					Total Women	Total Both Sexes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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—	—	—	—	—	—	Fishermen

* Based on the 1931 classification of occupations and social groups used by the Registrar-General

The following table gives the case load for each of the 36 wards in the City :—

TABLE 10.
CASES ON NOTIFICATION REGISTER
(At March, 1951).

City Ward	Respiratory		Total	Non-respiratory		Total	Grand total
	Active	In-active		Active	In-active		
Alexandra Park	73	38	111	18	20	38	149
All Saints'	87	47	134	18	25	43	177
Ardwick	80	48	128	18	19	37	165
Barlow Moor	56	28	84	6	9	15	99
Beswick	58	43	101	18	13	31	132
Blackley	69	37	106	14	15	29	135
Bradford	79	67	146	23	21	44	190
Burnage	74	48	122	18	24	42	164
Cheetham	65	39	104	10	8	18	122
Chorlton-cum-Hardy	64	36	100	12	8	20	120
Collegiate Church	70	41	111	8	13	21	132
Crumpsall	67	42	109	13	9	22	131
Didsbury	41	26	67	5	8	13	80
Gorton North	88	39	127	14	21	35	162
Gorton South	61	64	125	15	16	31	156
Harpurhey	66	29	95	13	13	26	121
Levenshulme	56	37	93	18	19	37	130
Lightbowne	71	31	102	15	14	29	131
Longsight	60	44	104	14	10	24	128
Miles Platting	58	28	86	15	6	21	107
Moss Side East	95	65	160	18	26	44	204
Moss Side West	92	34	126	12	19	31	157
Moston	83	61	144	14	14	28	172
New Cross	75	45	120	13	11	24	144
Newton Heath	72	57	129	15	10	25	154
Newtown	85	51	136	23	22	45	181
Northenden	107	52	159	18	22	40	199
Old Moat	76	58	134	16	22	38	172
Openshaw	89	59	148	17	13	30	178
Rusholme	60	40	100	18	10	28	128
St. George's	88	40	128	28	15	43	171
St. Luke's	88	43	131	17	15	32	163
St. Mark's	96	51	147	15	23	38	185
St. Peter's	26	16	42	2	5	7	49
Withington	49	28	77	8	7	15	92
Wythenshawe	324	172	496	51	51	102	598
Totals	2,848	1,684	4,532	570	576	1,146	5,678

The above table gives the case load in the reconstituted Municipal wards in the City. It was necessary during the year to reorganise the work of the Tuberculosis Health Visitors on the new ward basis.

TABLE 11.—Return showing the work of the Clinic during 1950.

Diagnosis	Respiratory				Non-respiratory				Total				Grand total	
	Adults		Children		Adults		Children		Adults		Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—New cases examined during the year (excluding contacts)—														
(a) Definitely tuberculous	342	261	34	23	30	42	21	19	372	303	55	42	772	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	321	275	47	37	680
(c) Non-tuberculous	..	..	..	..	..	..	..	..	1741	1718	205	202	3866
B.—Contacts examined during the year—														
(a) Definitely tuberculous	27	21	13	8	..	3	2	1	27	24	15	9	75	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	44	81	77	52	254
(c) Non-tuberculous	..	..	..	..	..	..	..	..	381	580	399	337	1697
C.—Cases written off the Clinic Register as—														
(a) Recovered	82	71	5	..	27	34	8	12	109	105	13	12	239	
(b) Non-tuberculous	..	..	..	..	..	..	..	..	2122	2298	604	539	5563
D.—Number of persons on Clinic Register on December 31st—														
(a) Definitely tuberculous	2290	1855	190	152	376	464	161	105	2666	2319	351	257	5593	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	365	356	124	89	934

Cases of tuberculosis who received treatment from the Clinic 271

Attendances at the Clinic 23,367

X-ray examinations 12,872

MATERNITY AND CHILD WELFARE.

By Dr. Winifred Alma Kane, Senior Assistant Medical Officer of Health
(Maternity and Child Welfare).

STAFF.

Medical—

Winifred Alma Kane, M.R.C.S., L.R.C.P., D.P.H. Senior Assistant Medical Officer of Health (Maternity and Child Welfare)

Muriel J. Brayshay, M.B., CH.B.
 Alice I. Burke, M.B., CH.B.
 Julia M. D. Corrigan, M.B., B.CH., B.A.O.,
 D.P.H. (resigned 11th February, 1950)
 Margaret Davenport, M.B., CH.B., D.R.C.O.G.
 (appointed 6th March, 1950 ; resigned
 11th November, 1950)
 Annie M. Dawson, B.SC., M.B., CH.B., D.C.H.,
 D.OBST. R.C.O.G.
 Florence M. Duckworth, M.B., CH.B.
 Beryl Edgecombe, M.B., CH.B., D.P.H.
 (resigned 22nd April, 1950)
 Maud M. Frankland, M.R.C.S., L.R.C.P.,
 D.R.C.O.G. (resigned 30th September
 1950)
 Greta Humble, M.B., CH.B.
 Rosaline Howat, M.B., CH.B.
 Gwendoline M. E. Keevil, M.B., B.S., D.C.H.
 Constance G. Lee, M.B., CH.B., M.R.C.S.,
 L.R.C.P., D.OBST. R.C.O.G. (appointed
 8th June, 1950)
 Margaret T. McCaffrey, M.B., B.CH., B.A.O.,
 L.M., D.C.H., D.P.H. (resigned 31st
 August, 1950 ; reappointed 9th October,
 1950)
 Lydia McMurdo, L.R.C.S., L.R.C.P.
 Helen E. Mair, M.B., CH.B. (appointed 2nd
 October, 1950)
 Barbara J. Nathan, M.B., B.CH., M.A.,
 D.OBST. R.C.O.G. (appointed 9th October,
 1950)
 Margaret E. Pilsworth, B.A., M.B., B.CH.,
 B.A.O.
 Marjorie Watson, M.B., B.S., B.CH. (resigned
 9th September, 1950)

Assistant Medical Officers.

Nursing—

Gladys A. Treloar, S.R.N., S.C.M. Non-Medical Supervisor of Midwives.
 (retired 2nd April, 1950)
 Eileen A. Lamb, S.R.N., S.C.M., M.T.DIPLOMA—Non-Medical Supervisor of Midwives.
 (appointed 12th April, 1950)
 Evelyn L. Gowing, S.R.N., S.C.M., HEALTH
 VISITOR'S CERT. Superintendent of Health Visitors.

The Midwifery Service.

The City Council's arrangements for a midwifery service under section 23 of the National Health Service Act, 1946, comprise:—

- (a) Midwives employed by the local health authority,
- (b) Midwives employed on an agency basis.

As regards (b) the City Council has agreements with the Board of Governors of the United Manchester Hospitals (St. Mary's Hospital Extern Service) and with the Manchester and Salford District Nursing Institution.

During 1950 notice of intention to practise was received from 246 midwives and 12 maternity nurses.

This number includes the following:—

Municipal midwives	80
Queen's District midwives	17
St. Mary's District midwives	14
Independent midwives	5
Midwives employed in nursing homes having no resident medical officer	15
Midwives employed in hospitals	115
Maternity nurses	12

Attendances at Notified Domiciliary Births.

Municipal Midwives and Midwives acting as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Maternity Nurses	Total
4,152	218	738	87	6	5,201

Attendances at Births in Institutions.

- (a) In nursing homes 917
- (b) In hospitals under Hospital Management Committee or Board of Governors under the National Health Service Act.. 6,886

Total of notified births 13,004

Analysis of Domiciliary Cases taken by Midwives.

	Midwife only at the case	Midwife with doctor called in	Midwife as maternity nurse	Total cases
(a) Municipal midwives	2,776	542	834	4,152
(b) Queen's District midwives	109	14	95	218
(c) St. Mary's District mid- wives	678	60	—	738
(d) Independent midwives ..	15	50	22	87
(c) Maternity nurses	—	—	6	6
Total	3,578	666	957	5,201

Supervision of Midwives.

The supervision and administration of the service is undertaken by a non-medical supervisor of midwives and two assistant non-medical supervisors.

For supervisory purposes the City is divided into two parts, the midwives resident in each part being immediately supervised by an assistant non-medical supervisor.

The work of 6 maternity nurses (for the nursing of cases of pyrexia or other unsatisfactory conditions), 3 premature baby nurses, and 3 ophthalmic nurses is also arranged and supervised by the supervisor of midwives.

Record of visits paid by the Supervisors.

Routine inspections at the midwives' homes	156
Supervisory visits to confinements and nursings	201
Visits to ante- and post-natal clinics	46
Special visits to midwives, sickness, etc.	45
Puerperal pyrexia investigations	102
Maternal death investigations	5
Special investigations, patients' homes, etc.	94
Hospitals and nursing homes	25
To Coroner's and Magistrates' Courts	3

Post-Graduate Instruction of Midwives.

A series of 6 post-graduate lectures were given in Manchester during the winter months. The average attendance at these lectures was 100 midwives.

Non-local Post-Graduate Courses.

Post-graduate courses were arranged in other parts of the country and midwives were sent to these as follows :—

Birmingham	2 midwives
Bristol	1 midwife
Cardiff	1 midwife
Leeds	2 midwives
London	2 midwives
Oxford	1 midwife

Midwives approved as Part II Teachers.

14 midwives are approved by the Central Midwives Board for Part II district training of pupil midwives ; 21 pupils were trained during the year.

Handywomen.

Under the City of Manchester Prohibition of Unqualified Persons Order, 1939, no unqualified person is permitted to attend a woman in childbirth or during the following 10 days for gain. One untrained person was cautioned for attending a patient in the capacity of a maternity nurse.

Breach of Central Midwives Board Rules.

No case was reported.

Municipal Midwifery Service.

There were 5,104 applications for municipal midwives. 602 applications were cancelled, the reasons being :—

(a) Transfers to hospital on medical grounds	468
(b) Miscarried	55
(c) Left the district	47
(d) Not pregnant	12
(e) Unsuitable home conditions	20

Details of the midwives' work :—

Total deliveries as midwife or maternity nurse.. .. .	4,152
Number of miscarriages attended.. .. .	114
Visits to patients discharged from hospital before the 10th day..	4,328
Home investigations	1,355
Attendance of midwives at Ante-natal Clinics	2,513
Attendance of midwives at Post-natal Clinics	234

Clinics.

Midwives hold Ante-natal Clinics at 22 of the Municipal Welfare Centres ; 18 of these are combined sessions, at which a doctor is available if required.

5 Post-natal sessions are held at the Centres, at each of which a midwife is present to assist.

Requests for Medical Aid.

During the year, 2,236 requests for medical aid were issued. Below is a table indicating from which source these aids were sought :—

	Municipal Midwives		Queen's District Midwives		St. Mary's District Midwives	Independent Midwives		Midwives in Maternity Homes having no Resident Medical Officer		Totals
	Midwife only	Doctor engaged	Midwife only	Doctor engaged	Doctor engaged	Midwife only	Doctor engaged	Midwife only	Doctor engaged	
A. Mother—										
(1) During labour	542	301	12	2	33	8	3	..	102	1,003
(2) During puerperium	178	106	1	1	23	1	1	..	12	323
B. Ante-Natal	153	64	4	..	2	4	..	..	3	230
C. Child	414	223	8	3	2	7	..	..	23	680
Totals	1,287	694	25	6	60	20	4	..	140	2,236

Artificial Feeding.

527 notifications of recourse to artificial feeding were received, 109 from midwives and 418 from institutions.

Gas and Air Analgesia.

67 midwives are trained to administer gas and air analgesia, all of whom have been supplied with machines.

2,750 patients availed themselves of the facility.

Transport.

33 midwives possess their own cars and 2 have motor cycles. For those midwives who do not own their own cars, transport is available day or night on application to a central depot.

Puerperal Pyrexia.

299 cases of puerperal pyrexia were notified during 1950, the rate per 1,000 total births being 23·42.

This shows an increase when compared with 1949, the rate per 1000 total births in that year being 22·29.

256 cases were investigated in the patients' own homes.

Classification of notified cases of Pyrexia.

Notified cases—299	Abortion	Deaths from abortion	Full term and premature labour	Deaths
Puerperal Sepsis— 214	2—3 months .. 49 3—4 „ .. 45 4 plus „ .. 10 Unstated .. 39 — 143 —	—	Normal labour .. 52 Abnormal labour .. 19 — 71 Of these— Full-term .. 68 Premature .. 3 — 71 —	—
Puerperal Pyrexia— 85	—	—	Normal labour .. 59 Abnormal labour .. 26 — 85 Of these— Full-term .. 71 Premature .. 14 — 85 —	—

Incidence of Pyrexia.

	Municipal Midwives	Midwives as Maternity Nurses	St. Mary's District Midwives	Queen's District Midwives	Independent Midwives	Institutions	General Practitioners—no nursing attendance	Totals
A. (1) Infection of genital tract	15	13	3	—	—	40	—	71
(2) Abortions	—	—	—	—	—	—	143	143
B. Extra genital causes ..	11	14	2	—	1	45	—	73
C. Unclassified	—	2	—	—	1	9	—	12
Totals	26	29	5	—	2	94	143	299

The causes are as follows :—

A. (1) Infection of the genital tract—

Uterine infection	50
Phlegmasia alba dolens	8
Retained products of conception	6
Pelvic cellulitis	2
Wound infection (Caesarian)	2
Septicaemia	2
Pulmonary embolism	1
	— 71

(2) Abortions 143

B. Extra genital causes—

Urinary infection	22
Mastitis	17
Respiratory infection	16
Anaemia	5
Influenza	2
Tuberculosis	2
Parotitis	2
Reactions to blood transfusion	2
Tonsillitis	1
Gonorrhoea	1
Lymphocytic meningitis	1
Obstructive jaundice	1
Sonne dysentery	1
	— 73

C. Unclassified 12

Total 299

Maternal Deaths.

10 deaths occurred during 1950 which were directly attributable to childbirth ; 7 others were due to associated causes.

Cause	Normal full term labour	Abnormal full term labour	Abortions and premature labour	Total	Rate per 1,000 Registered live and still births	
Puerperal Sepsis	—	—	1	1	1949	1950
Others	1	2	5 + 1 undelivered	9	1.19	0.78

This shows a decrease over last year, the rate then being 1·19.

Analysis of deaths due to other causes than sepsis:—

1(a) Shock following introduction of fluid into the uterus, self-induced	2
1(a) Cerebral haemorrhage eclampsia	1
1(a) Adrenal haemorrhage ; (b) forceps delivery. 2—Pre- eclamptic toxæmia	1
1(a) Broncho pneumonia ; (b) toxæmia of pregnancy.. ..	1
1(a) Acute cardiac failure ; (b) obstetric shock, post-partum haemorrhage. 2—Severe pre-eclampsia	1
1(a) Cardiac failure ; (b) pre-eclamptic toxæmia, precipitate labour with post-partum haemorrhage	1
1(a) Cardiac failure ; (b) obstetric shock, concealed accidental haemorrhage. Toxæmia of pregnancy	1
1(a) Obstetric shock. (b) Forceps delivery. 2—Potts disease of spine	1
	<hr/> 9 <hr/>

Analysis of 7 deaths associated with pregnancy :—

1(a) Uraemia ; (b) nephritis of pregnancy following malignant hypertension	1
1(a) Left-heart failure. 2—Pregnancy. P.D.	1
1(a) Acute myocardial failure ; (b) severe anaemia. 2—Normal delivery	1
1(a) Chronic nephritis and hypertension ; (b) nephritis of pregnancy	1
1(a) Lobar pneumonia. 2—Stillborn child	1
1(a) Mitral stenosis, aggravated by pregnancy and parturition. P.M.	1
1(a) Post-operative shock ; (b) resection gangrenous gut ; (c) Adhesion to T.B. glands. 2—Caesarian section 10 days previously	1
	<hr/> 7 <hr/>

In addition, there were 5 deaths in Manchester hospitals where the home address was outside the City.

Attendant at Confinement when Mother subsequently died.

Cause	Municipal Midwives	Midwives as Maternity Nurses	St. Mary's District Midwives	Queen's District Midwives	Institutions	Early Pregnancy		Total
						Abortions	Undelivered	
Sepsis	—	—	—	—	1	—	—	1
Others	—	—	—	—	6	2	1	9
Total	—	—	—	—	7	2	1	10

Pemphigus Neonatorum.

There were 10 cases of pemphigus neonatorum notified during the year ; all these cases were visited and nursed by the maternity nurses.

Table showing where Infection occurred.

Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
3	1	—	—	—	6*	10

* 2 were admitted to Monsall hospital.

Unnotified Cases of Skin Eruptions.

29 cases of skin infection occurred which were not notified as pemphigus, but were visited and nursed by the maternity nurses.

Table showing where Infection occurred.

Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
15	11	—	1	—	2	29

This is an increase of 8 over the number of cases of skin infection needing special nursing last year. No deaths occurred due to this cause during 1950.

*Stillbirths.***Incidence of Stillbirths.**

Registered Stillbirths	Notified Stillbirths—	Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Percentage of registered stillbirths in relation to total births
333	* 401	49	13	2	12	1	324	2.61

* Included in this figure are 69 cases where the mother's address was outside the City.

This shows a increase over last year, the percentage then being 2.46.

The Work of the Maternity Nurses.

6 maternity nurses are employed for the care of cases of pyrexia, or other conditions considered unsatisfactory for the midwife to attend.

Summary of Visits paid by the Maternity Nurses.

Diagnosis	Number of Visits
Notified cases of puerperal pyrexia.. .. .	482
Raised temperature (not notifiable).. .. .	1,724
Unsatisfactory condition of mother	987
Infection in the home.. .. .	30
Abortion.. .. .	167
Premature infants	807
Pemphigus and other skin conditions of infant	600
Infants with unsatisfactory conditions	383
Ophthalmia neonatorum	146
Puerperal pyrexia investigations	150
Maternal death investigations	21
Special investigations	1
Total	5,498

Premature Babies.

Owing to the increase in the number of premature infants requiring nursing in their homes, a third premature baby nurse was appointed in September, 1950. 398 babies were referred to the Department. This is an increase of 127 compared with 1949. Each baby was nursed until the weight was over 7 lb. and the baby's condition was satisfactory.

Source of reference of Premature Infants.

Municipal Midwives	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
86	2	6	1	303	398

Neo-natal Mortality Rate of Premature Infants according to Birth Weight.

Weight	Survived	Died	Total	Mortality Rate per cent.
Under 3 lb.	6	—	6	Nil
3—4 lb.	49	—	49	Nil
4—5 lb.	168	1	169	0·59
5 lb.	173	1	174	0·57
Total	396	2	*398	

* Includes 4 babies, who removed from Manchester, and 20 who were transferred to hospital, their weights being—

3—4 lb.	1
4—5 lb.	12
5lb. plus	7

Methods of Feeding when Nurse ceased to attend.

Wholly breast fed	Breast and complementary feeds	Artificial feeding	Total
130	56	212	398

Provision of Cots.

Specially prepared and heated cots are available for use in the home, on application by doctor or midwife. The cots were in use on 87 occasions during the year.

Ophthalmic Nurses.

3 ophthalmic trained nurses are employed for the care of all eye cases referred to the department.

Cases of Ophthalmia Neonatorum and Conjunctivitis in Newly Born Infants and Eye Defects in older children.

	Illegitimate	Legitimate	Total
1. Ophthalmia neonatorum—			
(a) Notified by Medical Practitioners	1	56	57
(b) Notified by the Royal Eye Hospital ..	1	8	9
2. Conjunctivitis in Newly-born—			
Reported by midwives :			
(a) Own cases	3	350	353
(b) Discharged from hospital before 14th day	—	71	71
3. Conjunctivitis and other eye defects in children over 14 days—			
(a) Reported by Medical Officers of Child Welfare Clinics	1	135	136
(b) Reported by Health Visitors, etc.	12	293	305
Total number of cases	18	913	931

Place of treatment for cases of ophthalmia neonatorum and conjunctivitis in the newly born.

Number of cases attending Royal Eye Hospital—

(a) In-patients	23
(b) Out-patients	35
Number of cases attended by a private doctor	873

Corneal infections.

(a) Under 14 days	—
(b) Over 14 days	4

Swabs.

Positive—G.C.	2
Negative	19

Summary of cases of ophthalmia neonatorum and conjunctivitis in the newly born.

Number discharged as recovered	877
Number discharged with damaged sight	—
Number died from any cause	—
Number removed from district	3
Number still under treatment at the end of the year ..	51

Number of Visits by Ophthalmic Nurses.

Primary	931	} Total ..	7,548
Subsequent	6,617		

Analysis of Eye Conditions of Children over 14 days referred by Health Visitors and Child Welfare Clinics.

	Brought forward from 1949	New cases in 1950	Carried over to 1951
Conjunctivitis (simple)	10	322	4
Conjunctivitis (purulent).. .. .	—	15	2
Lacrymal obstruction	4	64	1
Dacryocystitis	—	3	1
Blepharitis.. .. .	—	2	—
Corneal Ulcer	—	1	1
Corneal Nebula	3	2	5
Coloboma	4	—	3
Cataract (congenital)	9	3	8
Cataract (polar)	—	—	—
Glioma	2	1	1
Defective vision*.. .. .	6	8	11
Microphthalmos	3	1	3
Pterigium	1	—	—
Nystagmus	4	—	2
Anophthalmos	3	2	4
Hordeolum	—	14	—
Albino	1	—	—
Leukoma	—	1	1
Buphthalmos	—	1	1
Hazy cornea	—	1	—
Corneal Opacity	1	—	1
	51	441	48

Sunshine Home for Blind Babies.

One child was admitted during the year with right and left nystagmus and defective vision.

*Including 1 case of retrolental fibro-plasia.

Welfare Centres.

At the end of 1950 there were 26 municipal welfare centres and one voluntary centre. The voluntary centre is held at the Holy Name School, the Medical Officer, health visitor and clerk being supplied by the Corporation. Other staff at this centre is provided by the Sisters of Charity of St. Vincent de Paul. The voluntary centre attached to the out-patients department of the Duchess of York Hospital for Babies, Burnage, was taken over by the Corporation on 20th March, 1950.

In July, 1950, arrangements were made with the Lancashire County Council for the joint use of an Infant Welfare Centre in Prestwich, in order to afford facilities for children of mothers resident in the Heaton Park district of Manchester.

At the various centres there are 133 weekly medical consultations, comprising 62 infants, 16 toddlers, 3 sunlight, 47 ante-natal and 5 post-natal sessions.

9 infant sessions are taken by health visitors only and 4 ante-natal sessions by midwives only.

At the end of the year there were on the centre registers:—

6,362 children under 1 year	} Total 16,600
4,288 children between 1—2 years	
5,950 children between 2—5 years	

158,898 attendances were made at these sessions:—

106,188 by children under 1 year.
26,020 by children between 1—2 years.
14,741 by children between 2—3 years.
8,690 by children between 3—4 years.
3,259 by children between 4—5 years.

Massage and Remedial Exercises.

Massage treatment is provided at 21 centres, where 30 sessions are held each week. At 11 centres a weekly class of remedial exercises is held for children from 2—5 years. The ailments treated are postural defects, minor deformities, and general or local poor muscular tone.

There were 10,847 attendances for massage and 6,413 for remedial exercises.

Artificial Sunlight.

Treatment by ultra-violet light is given at Chorlton-upon-Medlock, Cheetham, Newton Heath, Ardwick and Collyhurst Centres. 20 adults and 957 children of whom 82 were under one year old, attended for treatment. The treatments given totalled 17,733.

The adults included expectant mothers suffering from various discomforts of pregnancy and post-natal debility, bronchitis, asthma and rheumatism. Children were treated for adenitis, boils, asthma, rickets, anaemia and malnutrition. 240 children ceased to attend before treatment was completed. All cases discharged were asked to attend for re-examination at a period of from 2 to 3 months after cessation of treatment and 85 per cent. kept their appointment. 18 were recommended to have a further course of treatment.

Cookery Classes.

Practical instruction in cookery was given at 5 welfare centres, where mothers were taught the value of food and preparation of meals.

"Make Do and Mend" Classes.

Eight "Make do and Mend" classes were provided during 1950 for instruction and advice to the mothers in Collyhurst, Withington, Northenden, Hulme, Rusholme, Cheetham, Newall Green and Newton Heath districts.

Voluntary Workers.

64 voluntary helpers gave useful assistance at the Child Welfare Centres during the year, making 1,999 attendances, and a letter of thanks and appreciation for their services during the year was sent to each of them.

The Schools for Mothers' Holiday Home at "Oakleigh," Marple, which was opened in 1936, closed during the year. It was made known to the Department, however, that a Holiday Home at 11, Albany Road, Southport, would admit mothers and babies attending Manchester Welfare Centres. The cost to the mothers is 30s. per week and the difference between the charge and working expenses is made up by the Manchester Girls' Institute. This generous concession is a tribute to the late Mrs. Schill, who founded both holiday homes.

Ante-natal Clinics.

Ante-natal clinics are provided at 23 centres, where a total of 48 sessions are held weekly. Five weekly sessions are held at Ardwick, 4 at Collyhurst and Chorlton-on-Medlock, 3 at Openshaw, Northenden, Rusholme and Withington and bi-weekly at Cheetham, Chorlton-cum-Hardy, Clayton, Gorton, Harpurhey, Levenshulme and Newall Green. Single sessions are held at Abbey Hey, Ancoats, Blackley, Crumpsall, Didsbury, Higher Blackley, Hulme, New Moston and Newton Heath. At two of the centres V.D. treatment for mothers and children is given.

8,119 new mothers presented themselves and 48,756 attendances were made.

Midwives' sessions are held at most of the centres, and during 1950 arrangements were made to combine midwives' and doctors' sessions. These combined midwives' and doctors' sessions are held at Ancoats, Ardwick, Blackley, Cheetham, Chorlton-on-Medlock, Chorlton-cum-Hardy, Clayton, Collyhurst, Crumpsall, Didsbury, Harpurhey, Hulme, Newall Green, Northenden, Openshaw, Rusholme and Withington. At Gorton, Higher Blackley, New Moston and Newton Heath, they are held on a separate day.

In addition to the ante-natal sessions provided at these welfare centres, there are ante-natal clinics at St. Mary's Hospital and Crumpsall and Withington Hospitals.

Post-natal Clinics.

Every attempt was made to secure the attendances of mothers for post-natal examination. Post-natal clinics are held at 5 centres—Ardwick, Chorlton-upon-Medlock, Northenden, Collyhurst and Openshaw, and mothers are recommended to these clinics by the medical officers at all the other centres and by the midwives on the districts.

1,185 mothers made 1,379 attendances.

Ante- and Post-natal Exercises.

Exercises for mothers attending during the ante-natal period are held at 9 welfare centres and 2,342 attendances were made. Post-natal exercise classes are held at the 5 post-natal clinics and there were 1,105 attendances.

The purpose of this treatment is to improve the condition of mothers before and after confinement.

Minor Ailments.

250 children under 5 years were referred from welfare centres to school clinics for treatment of the eyes, ears, skin, etc. 260 children were still undergoing treatment for ailments which had not been cured during 1949; thus the total number of children was 510.

The classification of the ailments and the attendance of these children is shown, also the number who finished treatment.

Where attendance ceased before treatment was completed, and where non-attendance was reported, the health visitor endeavoured to secure attendance or re-attendance as necessary.

Treatment of Minor Ailments.

Ailment	New cases referred	Still under treatment from 1949	Total	Reported not attending	Ceased attending but not finished treatment	Still under treatment	Finished treatment
Squint	50	40	90	—	—	38	52
Other eye affections	136	97	233	1	—	80	152
Otorrhoea	33	61	94	—	—	63	31
Other ear affections	9	18	27	—	—	16	11
Affections of nose	—	1	1	—	—	1	—
Impetigo	10	23	33	—	—	21	12
Other skin affections	5	12	17	—	—	6	11
Miscellaneous	7	8	15	—	—	7	8
Total	250	260	510	1	—	232	277

Dried Milk and Vitamised Foods.

The Health Committee continue to afford facilities in their welfare centres for the distribution of National dried milk, cod liver oil, orange juice, etc. Proprietary brands of dried milk were sold also to mothers attending the centres.

A quantity of these brands and National dried milk were supplied free by the department on the recommendation of the centre medical officers at a total cost of £288 10s. 4d.

Mothercraft Teaching Exhibition.

The Maternity and Child Welfare Mothercraft Teaching Exhibition comprises 7 sections, viz. ante-natal, child health, play therapy—showing suitable toys for 0—5 age groups, handicrafts, patterns and clothing of suitable garments from birth to 5 years, nutrition and prevention of accidents.

The exhibition has been on show to many groups of visitors and to individual visitors to the Department, including some from overseas. The visitors are mainly supervisory staff from other local authorities and training colleges. The exhibition was also on view at the Health Visitors' 12th Annual Week-end Refresher Course held in Manchester in March, 1950, and attended by 250 nurses working in various branches of the Public Health field and coming from local authorities in the North-West. The exhibition is used extensively for teaching purposes and travels round the welfare centres on rota, remaining a fortnight at each centre.

Handicraft classes held at the centres include handloom weaving, leather work, tarsia, and french polishing and are appreciated by the mothers.

Mothers' Evening Club.

The Health Committee has approved the forming of Evening Clubs at Cheetham and Northenden Maternity and Child Welfare Centres, in order to allow mothers who normally attend the centre to meet there fortnightly. The committees and honorary officers are elected from the mothers.

The activities of the clubs include talks, discussions and hobbies. Both clubs have their own library.

There is no membership fee and the enrolled members are 68 and 50 respectively at Cheetham and Northenden Centres. The programme for 1950 included talks, discussions, visits to theatres and other social activities. The average attendance by mothers at Cheetham Evening Club was 48, and 30 at Northenden Evening Club.

Children attending Child Welfare Centres, 1950.

Centre	On Register, January 1st, 1950			New attendances			On Register, January 1st, 1951		
	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years
Abbey Hey	244	190	163	356	62	206	268	202	317
Ancoats	84	47	56	153	30	49	102	57	56
Ardwick	340	194	191	441	63	105	306	184	157
Blackley	202	122	190	209	24	122	163	144	277
Burnage	—	—	—	105	16	26	98	81	69
Chorlton-upon-Medlock	219	126	158	317	54	85	255	128	129
Cheetham	357	88	113	375	44	222	306	164	277
Clayton	195	73	54	247	23	57	183	110	91
Collyhurst	345	161	135	502	43	240	347	179	269
Chorlton-cum-Hardy	363	253	237	389	46	102	298	241	294
Crumpsall	181	107	91	190	24	71	155	121	148
Didsbury	194	134	155	256	27	117	189	150	270
Gorton	303	170	110	395	52	56	303	154	122
Harpurhey	305	196	138	325	49	164	245	187	263
Higher Blackley	125	115	155	151	6	46	100	79	107
Holy Name	89	16	57	77	7	16	47	56	39
Hulme	125	83	52	276	49	152	191	106	213
Levenshulme	492	228	183	473	40	82	338	268	249
Newton Heath	221	187	154	263	45	239	229	152	330
Newall Green	123	66	58	388	189	498	224	235	529
New Moston	217	148	149	279	31	52	315	187	177
Northenden	271	174	296	279	63	246	204	134	346
Openshaw	386	185	184	498	64	138	330	193	177
Rusholme	452	218	186	505	56	145	332	191	277
Sharston	243	229	252	330	69	143	258	168	233
Withington	365	225	231	440	41	165	383	316	385
Hart Road, Wilbraham Estate	151	112	148	233	31	65	173	101	147
Totals	6,592	3,847	3,896	8,452	1,248	3,609	6,362	4,288	5,950
Total, 1949	6,662	5,529	4,198	8,557	1,097	1,909	6,592	3,847	3,896

Ante-natal Cases at Centres and Results of Delivery, 1950.

Centre	Number on Register on 1st Jan., 1950	Number of new cases during 1950	Transferred from another Centre during 1950	Total	Number still on Register 1st Jan., 1951	Number of full-term births (alive and stillborn)	Full-term stillbirths included in previous column	Number of premature births	Premature stillbirths included in previous column	Number of Mothers left district before confinement	Transferred to another Centre	Number of Mothers not pregnant	Totals
Abbey Hey	37	122	1	160	34	112	—	5	1	2	3	4	160
Ancoats	32	161	4	197	60	114	1	12	2	7	2	2	197
Ardwick	188	554	5	747	169	509	10	34	3	10	6	19	747
Blackley	86	164	5	255	61	160	3	14	1	4	9	7	255
Cheetham	111	358	1	470	125	302	4	12	6	10	6	15	470
Chorlton-upon-Medlock	99	369	7	475	93	317	4	23	4	26	6	10	475
Chorlton-cum-Hardy	91	282	3	376	109	243	7	3	—	12	6	3	376
Clayton	88	248	10	346	90	219	3	21	2	4	8	4	346
Collyhurst	267	854	18	1,139	242	781	10	59	14	18	19	20	1,139
Crumpsall	74	174	11	259	63	168	4	13	1	5	7	2	258*
Didsbury	50	106	3	159	42	103	3	2	—	3	6	3	159
Gorton	165	527	3	695	175	473	2	23	12	9	4	11	695
Harpurhey	122	376	3	501	143	310	4	23	3	4	13	8	501
Higher Blackley	49	117	4	170	46	112	4	4	3	3	4	1	170
Hulme	79	232	5	316	56	238	4	10	2	8	3	1	316
Levenshulme	116	308	3	427	115	271	5	19	6	12	5	5	427
Newall Green	56	306	42	404	118	253	2	11	6	15	3	4	404
New Moston	98	262	11	371	86	259	4	12	6	6	4	4	371
Newton Heath	145	295	4	444	98	295	5	27	11	10	11	3	444
Northenden	199	480	24	703	162	458	3	35	4	17	24	7	703
Openshaw	252	725	4	981	219	652	7	53	4	25	10	22	981
Rusholme	222	630	4	856	193	564	11	50	26	23	13	13	856
Withington	180	468	3	651	160	462	4	8	1	10	6	5	651
Totals	2,806	8,118	178	11,102	2,659	7,375	94	473	118	243	178	173	11,101

* One mother died before delivery.

Care of Illegitimate Children and their Mothers.

The health visitor specially appointed for these duties gives advice and assistance and acts as a liaison between the mother, the voluntary organisations and social services. Cases are referred by officers of the Maternity and Child Welfare Section of the Health Department, officers of the Children's Department, hospital almoners, probation officers, general medical practitioners and social workers of voluntary organisations.

During the year full-time assistance in these duties has been given by an additional health visitor.

The following particulars indicate the extent of the department's activities in connection with special problems concerning married and unmarried women and widows with their illegitimate children.

(1) Office interviews	1,135
Home visits	968
Visits to Knowle House	71
Visits to hospitals	68
Visits to voluntary hostels	10
Interviews with social workers and health visitors ..	601
Attendances at Magistrates' Courts	63
Total visits and interviews	2,916

(2) Mothers needing advice and assistance :—

	Live Births	Births Pending	Still-births	Mis-carriages	Not Pregnant	Total
Single	162	53	5	1	1	222
Married	46	10	1	1	—	58
Widow	8	2	—	—	—	10
Divorcee	6	1	—	—	—	7
Parents married before birth of baby	—	14	—	—	—	14
Mother removed	—	10	—	—	—	10
Totals	222	90	6	2	1	321

(3) Illegitimate children :—

Total number dealt with by the Welfare Officer—929, comprising :—

237 children of mothers seen in the post-natal period only.

222 children of mothers seen in the ante-natal period during 1950.

75 children of mothers seen in the ante-natal period during 1949.

395 children whose cases were re-investigated or carried forward from previous years.

Particulars of Illegitimate Children remaining with their Mothers.

Mothers	In lodgings or absorbed into family	With mother and putative father	With mother in a hostel	Parents subsequently married	Removed from Manchester	No trace	Deaths	Total
Single	360	90	9	25	34	7	12	537
Married	127	39	1	—	11	2	2	182
Widow	33	5	—	—	1	—	1	40
Divorcee	14	9	1	3	—	—	—	27
Totals	534	143	11	28	46	9	15	786

Particulars of Illegitimate Children apart from their Mothers.

Mothers	With adopters	With relatives	With foster mothers	Boarded out by Children's Committee	In residential nurseries (private)	In residential nurseries (Children's Committee)	Total
Single	54	19	8	2	9	16	108
Married	17	6	1	—	2	4	30
Widow	2	—	—	—	—	—	2
Divorcee	2	—	—	—	—	1	3
Totals	75	25	9	2	11	21	143

The action taken by Welfare Officer as regards cases referred to the Department was as follows :—

Admissions arranged to—

Knowle House Hostel	74
Voluntary hostels	16
Hospitals	14
Institutions	4

Ante-natal care arranged 31

Cases referred to—

Children's Department	146
Welfare Services Department	9
Mental Health Service	5
Poor Man's Lawyer Association	19
National Assistance Board	56
Probation Officers	4
Catholic Moral Welfare Council	34
Catholic Protection and Rescue Society	4
Diocesan Council for Moral Welfare	11
Manchester and Salford Methodist Mission	9
National Society for the Prevention of Cruelty to Children	13
District Provident and Charitable Organisation	2
Other organisations	8

Assistance given—

To find lodgings	3
To secure employment	10
Provision of clothing from departmental sources ..	50
Provision of perambulators and costs from departmental sources	6
Provision of clothing by voluntary organisations ..	30

Advice given *re*—

Affiliation orders	162
National Health maternity benefit	99
Hostel accommodation	129
Adoption	144
Day nurseries	137
Day minders	7
General matters	182

Regular visits were paid to 86 families requiring close supervision.

Affiliation Order Cases.

85 applications for affiliation orders were heard by the Manchester Magistrates' Court and were dealt with as shown :—

Assistance given by	Orders Granted	Orders Refused
Welfare Officer	49	—
Poor Man's Lawyer Association	6	1
National Assistance Board	22	1
Private Solicitors	5	1
Totals	82	3

Mother and Baby Home, "Knowle House," Handforth.

The primary reasons for admission to this home, which is administered by the Health Committee, are :—

- Mother and baby homeless, either because prior to her confinement the mother had been living in an institution, hostel or lodgings or had been engaged in residential employment.
- Relatives unwilling to allow the mother to return home with her illegitimate baby.
- Overcrowded or unsatisfactory home conditions.

The Welfare Officer arranges for the admission of mothers and babies to the home and is responsible for making suitable arrangements for them on their discharge.

On the 1st January, 1950, there were 8 mothers, 9 babies, 1 expectant mother in Knowle House, and from this date to 31st December, 1950, 74 mothers, 3 of whom had twins, were admitted with their babies, making a total of 77 babies. 72 mothers, 76 babies and 1 expectant mother were discharged, leaving 10 mothers and 10 babies in the home at the end of the year. The average stay was 6 weeks.

The following particulars show the arrangements made for the care of the 76 babies discharged from " Knowle House " :—

Babies remaining with mother—

In home of relatives (twins included)	17
In lodgings (twins included)	9
In residential domestic employment	5
In institutions	2
In hospitals	1
In St. Teresa's Home, Salford	1

Babies apart from mother—

In homes of adopters	32
In homes of foster mothers	2
In residential nurseries	6
In hospital	1

Recuperative Centre.

By arrangement with the Community Council of Lancashire, mothers and children are admitted to the Brentwood Recuperative Centre, Marple, Cheshire, on recommendations of the Maternity and Child Welfare Section, the cost of maintenance being borne by the Health Committee. Since 5th July, 1948, provision for these arrangements has been made in the City Council's scheme for prevention of illness, care and after-care under Section 28 of the National Health Service Act, 1946.

Admissions to the Centre during 1950 comprised 5 mothers whose ages were from 20 to 23 years, 2 children under 1 year and 8 children from 1 to 5 years.

Three families remained for the full period of 6 weeks. One of the other 2 returned home after 9 days as she could not adjust herself to the life at Brentwood. The other mother returned after 15 days as her baby developed whooping cough.

The four primary reasons for recommending the mothers for admission to Brentwood are :—

- (1) Lack of training and experience in housewifery and child management.
- (2) Ill-health and lowered vitality, due to too rapid child bearing, depressing surroundings and environment, and possibly, in the case of some mothers, malnutrition.
- (3) Unsatisfactory home conditions, including lack of domestic facilities.
- (4) Difficulties between parents, causing the mother to lose interest in her home and children.

Marked improvement in both mental and physical condition of the family is evident after a stay in Brentwood. In most cases the mothers look more alert and happy, find pleasure in household tasks, and the children benefit greatly from the training given in the Centre. By frequent visits from the health visitor it is hoped to maintain and still further improve the standard of living of these families.

Health Visiting.

Health visitors supervise generally the nutrition and development of children under school age, the health and welfare of their mothers, and the teaching of mothercraft. Further duties were imposed on health visitors from 5th July, 1948, by Section 24 of the National Health Service Act, 1946, which requires every local authority to make provision for the visiting of persons in their own homes by health visitors, for the purpose of giving advice as to the care of young children, persons suffering from illness, and expectant or nursing mothers, and as to measures necessary to prevent the spread of infection. There has been a considerable increase in the work of health visitors during 1950 in connection with aged and infirm persons and the follow-up of discharged hospital patients. In December, 1950, the health visitors had under observation 61,832 children under 5 years of age.

Notification of Births.

The total number of notifications was 14,135, compared with 15,002 in 1949, and 16,312 in 1948. A number of these were notified by St. Mary's Hospital, Prestbury.

Source of Notification and Place of Birth.

Manchester		St. Mary's Hospital, Prestbury		Totals	
Live	Still	Live	Still	Live	Still
12,626	378	1,120	11	13,746	389

Total registered births numbered 12,769 and of these 940 were illegitimate.

It has been possible in 12,631 births (12,328 live births and 303 stillbirths), representing 99 per cent. of the total registered births in the City, to consider the place in the family of each birth, and this is shown in the following tables.

Full time and premature births have been separated, the accepted standard birth weights of 5½lb. or under for premature babies having been adopted in 1938.

Births investigated during 1950 to show place in family.

Place in Family	Live Births				Still-births				Still-births		Live and Still-births
	Legitimate		Illegitimate		Legitimate		Illegitimate		1950	1949	
	Full time	Pre- mature	Full time	Pre- mature	Full time	Pre- mature	Full time	Pre- mature	Per cent.	Per cent.	
1st	3,766	331	285	74	46	40	6	2	31.02	34.19	36.01
2nd	3,371	170	139	57	42	36	1	1	26.41	24.52	30.22
3rd	1,767	99	100	23	25	26	—	4	18.15	16.77	16.18
4th	834	51	58	21	8	13	—	2	7.59	9.36	7.81
5th	434	27	43	7	6	3	1	—	3.30	5.48	4.12
6th	229	21	30	9	8	6	—	—	4.62	2.58	2.40
7th	115	11	14	2	5	4	—	—	2.97	1.94	1.20
8th	97	5	10	4	4	2	—	—	1.98	1.94	.97
9th	44	1	1	—	5	1	—	—	1.98	.97	.41
10th	37	3	—	—	2	2	—	—	1.32	1.29	.35
11th	17	2	—	1	—	1	—	—	.33	.32	.17
12th	9	—	—	—	1	—	—	—	.33	.32	.08
13th	6	—	—	—	—	—	—	—	—	.32	.05
14th	—	—	—	1	—	—	—	—	—	—	.01
15th	1	—	—	—	—	—	—	—	—	—	.01
16th	1	—	—	—	—	—	—	—	—	—	.01
17th	—	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—	—
Totals	10,728	721	680	199	152	134	8	9	100.00%	100.00%	100.00%

12,328

303

12,631

It is interesting to compare the size of the average family and the age of the mother of each new investigated birth in 1950 as compared with 1935 when the analysis was first made. Tables for these two years are as follows :—

(1) Age of mothers at birth of children during 1950
showing place in family of each birth.

Age Groups Years	Place in Family																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
15—	+ 1 aged 14 years 380	61	7	4	—	—	—	—	—	—	—	—	—	—	—	—	+ 1 aged 14 years 452
20—	1,960	983	302	58	18	2	—	—	1	—	—	—	—	—	—	—	3,324
25—	1,400	1,510	750	296	116	44	15	5	2	—	—	—	—	—	—	—	4,138
30—	535	838	543	310	166	108	41	27	11	6	4	2	—	—	—	—	2,591
35—	209	331	337	241	170	95	59	56	19	16	7	2	2	1	—	—	1,545
40—	47	78	90	67	45	50	28	30	15	21	9	5	4	—	—	—	489
45—	8	3	7	6	4	3	7	4	4	1	1	1	—	—	1	1	51
50—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
	4,540	3,804	2,036	982	519	303	150	122	52	44	21	10	6	1	1	1	12,592

(2) Age of mothers at birth of children during 1935
showing place in family of each birth.

Age Groups Years	Place in Family																		Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	
15—	294	25	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	320
20—	1,617	718	184	39	9	1	1	—	—	—	—	—	—	—	—	—	—	—	2,569
25—	1,419	1,054	540	253	97	44	19	2	2	—	—	—	—	—	—	—	—	—	3,430
30—	489	627	486	337	207	140	74	50	17	7	5	1	—	—	—	—	—	—	2,440
35—	118	288	235	194	159	132	111	88	65	30	16	6	4	1	2	—	—	—	1,449
40—	18	40	50	68	69	53	53	40	31	32	18	6	7	5	1	1	1	1	494
45—	—	2	—	5	9	6	4	1	6	7	5	5	4	3	1	—	—	—	58
	3,955	2,754	1,496	896	550	376	262	181	121	76	44	18	15	9	4	1	1	1	10,760

The 1950 births are further analysed to show the difference between legitimate and illegitimate births and live and stillbirths.

Age of mothers at birth of live children during 1950.

(A) Place in family of each investigated birth (legitimate).

Age Groups Years	Place in Family																Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
15— ..	297	57	7	4	—	—	—	—	—	—	—	—	—	—	—	—	365
20— ..	1,770	896	280	56	16	2	—	—	1	—	—	—	—	—	—	—	3,021
25— ..	1,307	1,431	691	266	109	36	13	5	2	—	—	—	—	—	—	—	3,860
30— ..	476	769	495	274	140	91	31	22	8	6	4	2	—	—	—	—	2,318
35— ..	187	300	303	213	150	79	51	47	16	16	7	1	2	—	—	—	1,372
40— ..	42	72	78	61	41	39	25	24	14	17	7	5	4	—	—	—	429
45— ..	8	3	6	6	4	2	6	4	4	1	1	1	—	—	1	1	48
50— ..	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
	4,087	3,528	1,860	880	460	250	126	102	45	40	19	9	6	—	1	1	11,414

(B) Place in family of each investigated birth (illegitimate).

Age Groups Years	Place in Family														Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
14—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
15—	78	3	—	—	—	—	—	—	—	—	—	—	—	—	81
20—	160	69	19	2	2	—	—	—	—	—	—	—	—	—	252
25—	64	51	39	22	6	8	1	—	—	—	—	—	—	—	191
30—	34	52	31	30	23	13	9	4	1	—	—	—	—	—	197
35—	19	16	25	21	15	13	3	6	—	—	—	—	—	1	119
40—	3	5	6	4	4	5	2	4	—	—	1	—	—	—	34
45—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
	359	196	121	79	50	39	15	14	1	—	1	—	—	1	876

Age of mothers at birth of stillborn children during 1950.

(A) Place in family of each investigated stillbirth (legitimate).

Age Groups Years	Place in Family												Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	
15—	4	1	—	—	—	—	—	—	—	—	—	—	5
20—	28	17	2	—	—	—	—	—	—	—	—	—	47
25—	26	28	18	7	1	—	1	—	—	—	—	—	81
30—	23	17	16	6	3	4	1	1	2	—	—	—	73
35—	3	14	9	6	4	3	5	3	3	—	—	1	51
40—	2	1	6	2	—	6	1	2	1	4	1	—	26
45—	—	—	—	—	—	1	1	—	—	—	—	—	2
	86	78	51	21	8	14	9	6	6	4	1	1	285

(B) *Place in family of each investigated stillbirth (illegitimate).*

Age Groups Years	Place in Family					Total Births
	1	2	3	4	5	
15—	1	—	—	—	—	1
20—	2	1	1	—	—	4
25—	3	—	2	1	—	6
30—	2	—	1	—	—	3
35—	—	1	—	1	1	3
	8	2	4	2	1	17

Stillbirths.

The number of stillbirths allocated to the health visitors for investigation was 302.

Found Children.

The health visitors found 1,589 other children belonging to families which had moved into Manchester during the year. The year of their birth was as follows :—

430 born 1950.

418 „ 1949.

318 „ 1948.

250 „ 1947.

173 „ 1946.

Deaths.

547 deaths occurred amongst children under 5 years of age.

The classification according to age is :—

471 children under 1 year.

33 „ 1—2 years.

21 „ 2—3 years.

11 „ 3—4 years.

11 „ 4—5 years.

The distribution according to age of children who died under 1 year was as follows :—

Died under 1 day	Died 1 to 7 days	Died 1 week to 4 weeks	Died 1 month to 3 months	Died 3 months to 6 months	Died 6 months to 9 months	Died 9 months to 12 months	Total
98	120	45	86	71	29	22	471

The following table gives mortality rates for the past ten years amongst children 1—5 years. This is based upon the number of live births for the year.

**Infant Mortality Rate and Case Mortality Rates
for Measles and Whooping Cough.**

Year	Infant Mortality Rate	Mortality Rate 1—2 years	Mortality Rate 2—5 years	Mortality Rate 1—5 years	Total cases of Measles		Total known cases of Whooping Cough	
					Cases	Mortality Rate per cent	Cases	Mortality Rate per cent
1941 ..	84.47	10.6	16.3	26.9	3,869	.52	4,715	1.38
1942 ..	64.52	5.5	7.6	13.1	10,468	.16	1,103	1.45
1943 ..	60.88	5.9	6.8	12.7	4,419	.27	3,277	1.28
1944 ..	53.59	5.6	3.8	9.4	6,736	.13	2,003	1.30
1945 ..	55.80	3.7	6.0	9.7	5,596	.14	1,835	1.36
1946 ..	63.71	3.7	3.9	7.7	3,800	.08	2,265	1.41
1947 ..	59.76	4.1	3.4	7.5	9,008	.23	2,308	.78
1948 ..	42.12	3.2	3.9	7.1	10,650	.16	2,612	.73
1949 ..	38.24	2.7	4.5	7.2	6,485	.11	2,749	1.05
1950 ..	37.87	2.7	3.4	6.1	9,798	.08	4,187	0.41

Infant and Child Mortality per 1,000 Births.
Quinquennial periods 1911—1950.

Quinquennial Period	Infant Mortality	Child Mortality, 1—2 years	Child Mortality, 2—5 years
1911—1915	133.13	45.0	35.5
1916—1920	104.51	34.9	34.3
1921—1925	95.85	34.2	23.9
1926—1930	87.88	26.2	20.9
1931—1935	77.34	18.3	17.6
1936—1940	70.81	11.3	11.3
1941—1945	63.85	6.3	8.1
1946	63.71	3.7	3.9
1947	59.76	4.1	3.4
1948	42.12	3.2	3.9
1949	38.24	2.7	4.5
1950	37.87	2.7	3.4

Expectant Mothers.

Health visitors also visited at the end of six months all mothers who had given birth to a stillborn child or to a child who had died before reaching the age of one month, in order to ensure adequate ante-natal care should she subsequently become pregnant. 331 stillbirths and 241 neo-natal deaths occurred in the City during 1949 and 1,112 special visits were made by the Health Visitors during 1950 to those mothers. In this way 60 expectant mothers who might require special care were brought to the notice of the Department.

CAUSES OF DEATH IN CHILDREN UNDER 1 YEAR.
MANCHESTER FIGURES (52 WEEKS).

ALL CAUSES	All Saints	Ardwick	Beswick	Blackley	Bradford	Cheetham	Chorlton-cum-Hardy	Collegiate	Collyhurst	Crumpsall	Didsbury	Gorton North	Gorton South	Harpurhey	Levenshulme	Longsight	Medlock Street	Miles Platting	Moston	Moss Side East	Moss Side West	New Cross	Newton Heath	Openshaw	Rusholme	St. Clement's	St. George's	St. James's	St. Luke's	St. Mark's	St. Michael's	St. Vincent	Within 5 miles	Total
Tuberc. Respiratory	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Mening.	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
„ Perit. Tabes Mes.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Other	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Syphilitic Dis.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	1	1	—	—	1	—	—	—	—	1	—	—	—	—	—	1	1	—	2	2	2	—	2	—	—	—	—	—	—	—	—	—	14
Measles	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal Inf.	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Acute Inf. Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Food Poisoning	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis (not T.B.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Nervous Dis.	—	—	—	—	1	—	—	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Broncho Pneumonia, 4 weeks +	1	2	2	1	3	1	2	—	4	1	—	1	—	2	—	2	1	—	1	2	—	—	1	—	2	—	2	—	—	—	—	—	—	44
Lobar „ „ +	—	—	1	—	4	1	—	—	—	—	—	—	1	1	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	11
Other „ „ +	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Bronchitis	1	—	2	1	—	1	—	—	—	—	—	—	1	1	1	—	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	14
Other Respiratory	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2
Diarrhoea, 4 weeks +	—	2	3	1	1	1	1	—	3	—	1	—	—	—	—	—	1	—	—	2	1	—	2	1	—	—	—	2	—	—	—	—	—	26
Gastritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Digestive	—	—	1	—	1	—	—	—	—	1	—	—	—	1	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	19
Congenital Defects	3	3	2	2	3	4	2	—	—	2	—	4	2	3	1	1	—	2	4	4	1	2	1	2	2	—	1	—	—	—	—	—	—	67
Birth Injury with immaturity	—	—	—	—	1	—	—	—	1	2	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	2
„ „ without immaturity	—	—	3	2	—	—	1	—	—	2	1	—	—	—	1	—	2	—	—	—	3	—	—	2	—	—	—	1	—	—	—	—	—	24
Atelectasis with immaturity	2	—	—	—	3	—	1	—	1	2	3	—	1	1	2	1	1	1	—	1	1	—	2	1	—	—	—	1	—	—	—	—	—	31
„ „ without immaturity	1	2	—	3	—	3	—	1	1	1	—	—	2	1	—	—	1	—	2	1	1	—	—	1	1	—	—	—	—	—	—	—	—	29
Pneumonia with immaturity, — 4 weeks	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	4
„ „ without immaturity, — 4 weeks	—	1	—	—	1	—	3	—	1	1	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	15
Diarrhoea with immaturity, — 4 weeks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ „ without immaturity, — 4 weeks	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Other Sepsis of Newborn with immaturity, — 4 weeks ..	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
„ „ „ without immaturity, — 4 weeks ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others of early infancy with immaturity	—	1	—	—	1	—	—	1	—	1	2	—	—	1	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	12
„ „ „ without immaturity	—	—	—	—	1	1	—	1	1	2	—	—	—	1	—	—	—	—	1	1	—	—	1	2	—	—	—	—	—	—	—	—	—	15
Immaturity unqualified	2	2	4	3	2	1	7	—	3	—	4	4	3	1	—	—	1	3	3	3	2	1	6	5	—	—	—	—	—	—	—	—	—	3
Suffocation (overlain)	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—</														

Co-operation with School Health Service.

A report on every child reaching school age and known, on the health visitor's final visit, to be suffering from medical defect or to have an unsatisfactory family history, is referred to the School Health Department ; 832 such summaries were sent during the year, classified as follows :—

Unsatisfactory condition in child	..	..	..	..	..	582
History of tuberculosis in child	..	..	..	..	..	17
History of tuberculosis in family	..	..	..	..	..	131
History of rheumatism in child	..	..	..	..	..	15
History of rheumatism in family	..	..	..	..	..	73
Unsatisfactory history in family..	..	..	..	..	..	..14
Total	..	..	..	..	..	<hr/>832 <hr/>

Welfare of Women and Children on Canal Boats.

Manchester canal carrying companies do not allow women and children on their boats, but on 10 visits to tying-up places in the City the health visitor found women and children on five “ narrow ” boats visiting the City.

The families came from Wolverhampton, Birmingham and Worcester.

The standard of cleanliness on the boats varies very considerably and the lack of space makes it difficult to maintain a condition of tidiness, especially when there are several children on board.

The total number of children on the five “ narrow ” boats was 20, with ages as follows :—

Under 1 year	..	..	..	..	1
3 to 4 years ..	..	..	..	..	1
5 years and over	..	..	..	..	18

In one boat there were 6 children with ages ranging from 1 to 12 years and the mother was pregnant. This mother had booked a midwife in Wolverhampton and had recently seen a health visitor in Birmingham. In another boat there were 5 children with ages ranging from 5 to 10 years. They had not been immunised against diphtheria and they were advised about this. The mother, who looked careworn, had a severe cough and was advised to see a doctor.

As these boats are only tied up for brief periods, varying from a few hours to two days, there is little chance of the children attending school regularly. The children are often shy and diffident, due to their lack of contact with other children, especially as they are backward in their education.

The parents seem quite indifferent about the children's poor chance of education.

It is evident from these conditions that women and children should be prohibited from living on canal boats and the Canal Boats Regulations should be amended accordingly.

Care of Aged and Infirm Persons.

Special provision is made in the National Assistance Act, 1948, for securing the necessary care and attention for persons who :—

- (a) are suffering from grave chronic disease or, being aged, infirm or physically incapacitated, are living in insanitary conditions ; and
- (b) are unable to devote to themselves and are not receiving from other persons proper care and attention.

1,592 individual visits were paid by health visitors to 580 persons whose circumstances were reported to be unsatisfactory and were brought to the notice of the Department, including 51 brought forward from last year.

In dealing with these cases the department continued to maintain close liaison with the Welfare Services Department, Manchester and Salford District Nursing Institution and hospital almoners.

Details follow with regard to the action taken to deal with the cases reported, and the comparable figures for 1949 :—

Voluntary Admissions to Hospital—	1949	1950
Crumpsall	28	39
Withington	44	70
Springfield	19	44
Newholme	11	8
Manchester Royal Infirmary	2	2
Mayfield House	2	—
Barnes Hospital, Cheadle	1	—
Monsall	—	1
Ancoats	—	1
Admitted to—		
Mental Home	2	1
Little Sisters of the Poor	3	2
Home for Blind	1	2
Private Nursing Home	4	11
Hospital in Bath	1	—
Referred to—		
Mental Health Section	3	10
National Assistance Board	10	—
Welfare Services Department	21	40
Blind Aid Society	4	—
Sanitary Section	—	3
Tuberculosis Section	—	1
Died before admission to Hospital	42	59
Recovered (nursed at home)	1	10
Removed to a relative's home	1	3
Compulsory removals under Section 47 of the National Assistance Act, 1948	15	19
No further action necessary	12	22
Carried forward at 1st January, 1950	51	172
	287	520
Total number of visits paid during period 1st January, 1949, to 31st December, 1949	680	
Total number of visits paid during period 1st January, 1950, to 31st December, 1950		1,592

**Particulars of Persons dealt with under Section 47 of
the National Assistance Act, 1948.**

During the Year 1950.

19 persons were dealt with during the year and of these 15 were admitted to Part III accommodation and 4 to chronic sick wards. In addition there were 8 persons under supervision at 1st January, 1950.

This total of 27 persons comprised the following :—

Died during the year	8
Settled in accommodation and not necessary to renew Court Orders	4
Transferred to Mental Ward	1
Alive at end of the year and renewal of Court Orders necessary	14
Total	27

Section 47—National Assistance Act, 1948.

Cases during 1950.

Sex Age	Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Ultimate result of Council's action	Other information of interest
F. 74	Is aged and infirm and is living in insanitary conditions and is unable to devote to herself, and is not receiving from other persons, proper care and attention.	3 months	Part III	Extension of Order—last date 18.10.50.	Very deaf—crippled with arthritis. Living with sister aged 82 years who suffered from rheumatism, and had a femoral hernia of long standing. Living quarters very cramped—danger of fire.
F. 82	Ditto.	3 months	Part III	Transferred to Regional Hospital Board, 17.4.50. Extension of Order—last date 18.10.50.	Suffering from (1) rheumatism. (2) femoral hernia of long standing. Living with sister aged 74 years who was crippled with arthritis. Living quarters very cramped—danger of fire.
F. 70	Ditto.	3 months	Part III	Extension of Order—last date 20.12.50.	Inadequately clothed and had no fire in the depth of winter in spite of having a private income.
F. 70	Ditto.	3 months	Chronic sick bed	Died one month after admission.	Suffered from rheumatism—both legs were fractured 6 months prior to removal. Had an adequate income. Very difficult temperament.
F. 78	Ditto.	3 months	Chronic sick bed	Three months later this person had settled comfortably. Not necessary to renew the Court Order.	Husband, aged 80 years, only living relative.
M. 70	Is aged and infirm and is living in insanitary conditions and is unable to devote to himself, and is not receiving from other persons, proper care and attention.	3 months	Part III	Transferred to a Mental Ward eight days after admission. No renewal of Order required.	Threatened to take his wife's life. Wife afraid of husband.

Sex Age	Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Ultimate result of Council's action	Other information of interest
F. 80	Is aged and infirm and is living in insanitary conditions and is unable to devote to herself, and is not receiving from other persons, proper care and attention.	3 months	Part III	Extension of Order—last date 18.10.50.	Lived with twin sister who was admitted to Part III accommodation at the same address, and the same time as a voluntary patient.
F. 83	Ditto.	3 months	Chronic sick bed	Died four days after admission.	Cataracts both eyes. Suddenly lost use of legs.
F. 63	Ditto.	3 months	Part III	Date of Order 24.10.50.	Husband was admitted to hospital (chronic sick bed) 12 days before date of Court Order for wife. Both were dirty and verminous and the husband was ill.
F. 78	Ditto.	3 months	Part III	Date of Order 24.10.50.	Wandered about at night and often had to be dealt with by the Police in consequence.
F. 81	Ditto.	3 months	Part III	Date of Order 21.11.50.	Living with sister, aged 84 years, who is blind.
F. 84	Is aged and infirm and is living in insanitary conditions and is unable to devote to herself, and is not receiving from other persons, proper care and attention.	3 months	Chronic sick bed	Died the day following admission.	Living with sister, age 81 years. This person fell downstairs a few days before removal and sustained a fractured humerus and extensive bruises.
F. 84	Ditto.	3 months	Part III	Died 24.12.50.	Had cardiac trouble but refused to rest. Lived alone. Furniture and bedding inadequate and dirty—slept on a couch or chair. Neighbours refused to help her as she was aggressive, abusive, and used foul language.
F. 80	Ditto.	3 months	Part III	Date of Order 28.11.50.	Wandered from home at night.
F. 74	Ditto.	3 months	Part III	Date of Order 13.12.50.	Double cataract. Bedding and furniture inadequate. Dirty and verminous. Kept two dogs and three cats, one dog vicious, which deterred neighbours from going in to help.
F. 80	Ditto.	3 months	Part III	Date of Order 20.12.50.	Knocked neighbours up at all hours of the day and night on trivial pretexts, did not seem to know the difference between night and day.
F. 83	Ditto.	3 months	Part III. Pending a vacancy in a chronic sick ward	First Order 20.12.50. Died 27.12.50. Two days after admission to chronic sick bed.	Lived alone in filthy, verminous premises. Had a fall and dislocated left shoulder. General condition very poor: had pressure sores from sitting before she became bedridden.
M. 81	Is aged and infirm and is living in insanitary conditions and is unable to devote to himself, and is not receiving from other persons, proper care and attention.	3 months	Part III	Date of Order 20.12.50.	This person is blind. He was a lodger at this address and the tenant of the house died and there was no one to look after him. No relatives.
M. 69	Ditto.	3 months	Part III	Date of Order 20.12.50.	Very dirty personal habits which his children tried to cope with for six years after the death of their mother, but finally it was impossible to keep their father clean, in spite of all their combined efforts to do so.

Verminous Conditions and Scabies.

Persons treated for Verminous Conditions at Monsall Clinic.

Year	Males Adult	Females Adult	School Children	Children under 5	Total
1946	205	532	532	157	1,426
1947	187	299	400	113	999
1948	236	92	259	20	607
1949	229	99	242	24	594
1950	319	133	202	13	667

The Department has a scheme for supplying special steel combs at cost price to mothers; 34 steel combs were distributed, compared with 87 during 1949.

Scabies.

The main source of notification of scabies is the Education Department, but many cases are brought to the notice of health visitors, either as contacts of those notified by the School Health Service or as new cases.

The source and number of notifications received during 1950 and the preceding years was as follows :—

Sources of Notification of Scabies.

	1946	1947	1948	1949	1950
School Health Service	1,494	986	433	276	140
Hospitals	684	330	42	24	6
General Practitioners	1,184	504	265	158	130
Centre Medical Officers	183	100	44	30	4
Health Visitors	1,132	375	163	70	10
Applied voluntarily	783	295	137	78	99
Discovered at Monsall	13	13	9	3	17
H.M. Forces	—	—	1	—	—
Salvation Army	1	1	4	—	6
Welfare Services Department	6	9	—	—	8
Sanitary Section	—	—	—	—	—
Ministry of Labour	4	—	—	—	—
Ministry of Health	—	7	2	3	—
Business Houses	17	10	13	2	—
Day Nurseries	15	1	—	—	6
Total	5,516	2,631	1,113	644	426

The number of persons treated at Monsall is shown in the following table :—

Treatment for Scabies.

Year	Males Adult	Females Adult	School Children	Children under 5	Total Persons
1946	1,212	1,996	871	740	4,819
1947	523	794	313	359	1,989
1948	257	320	168	154	899
1949	162	186	82	75	505
1950	93	143	76	79	393

Scabies is treated by two applications of an emulsion of benzyl benzoate with an interval of from one to four days between the first and second treatments.

The health visitor paid 247 visits to homes in which scabies occurred.

Monsall Clinic provides a 12-hour service on Wednesday of each week to suit the convenience of workers unable to attend during the day.

184 student health visitors and student nurses attended the Clinic during the year for purposes of instruction and information.

National Society for the Prevention of Cruelty to Children.

The Department is again indebted to this Society for assistance in dealing with certain difficult families. During the year help was sought in 24 cases, compared with 25 in 1949 and 15 in 1948.

Training of Student Health Visitors.

The Department affords practical training for student health visitors, lectures being given at Manchester Municipal College of Technology. The training course extends from September to May and at the examination of the Royal Sanitary Institute which was held at the conclusion of the last course in May, 1950, 38 students presented themselves and 33 were successful at the first attempt, 3 students passing the examination at the second attempt.

The present course commenced in September, 1950, and includes many more instructive visits and talks of educational value. 40 students enrolled for the course, 13 being assisted financially by Manchester City Council. Other students were sponsored by various local authorities in the North-West, including Burnley, Oldham, Salford, Stockport, Warrington, and the County Councils of Lancashire and Derbyshire.

An exhibition of students' work is held at the same time as the annual refresher course for health visitors and public health nurses, and comprises demonstration and other material used in teaching mothercraft.

Nursing Homes Registration.

(Public Health Act, 1936—Section 187/194.)

There were 16 registered Nursing Homes in the City at the end of the year, of which 4 were registered for maternity patients, 7 for medical, 3 for maternity, medical and surgical, 1 for maternity and medical and 1 for medical and surgical.

One nursing home closed during the year.

Exemptions under Section 192 were granted to 4 voluntary hospitals.

All registered nursing homes were inspected during the year.

Visits by Health Visitors, 1950.

Type or cause of visit	Number
Children, 0-1 years, primary visits	13,480
„ „ „ subsequent visits	36,949
„ 1-2 „	25,994
„ 2-3 „	23,870
„ 3-4 „	20,198
„ 4-5 „	18,770
„ 5-14 „	1,398
„ visits <i>re</i> removal to and from the City	6,439
„ over 5 years, nursed out	2
„ interviews with parent only	11,404
Persons over 14 years	4,650
Aged and infirm persons	1,592
Stillbirths, primary visits	224
„ subsequent visits	353
Neonatal deaths	230
Mothers, primary visits during pre-natal period	1,347
„ subsequent visits during pre-natal period	225
Unsatisfactory home circumstances	70
Scabies, primary visits	184
„ subsequent visits	63
Verminous conditions, primary visits	412
„ „ subsequent visits	145
Infantile diarrhoea, investigations	6
Venereal disease, primary visits <i>re</i> “follow up”	96
„ „ subsequent visits <i>re</i> “follow up”	330
Miscellaneous visits	11,392
Visits by student health visitors	6,288
Total	186,111

Day Nurseries.

There are 29 day nurseries in the City, providing accommodation for 1,450 children. The nurseries are open from 7 a.m. to 6-30 p.m. on Monday to Friday inclusive. The charge during 1950 remained at 1s. 6d. per day, which covered the cost of food only.

At the end of the year the names of 1,543 children were on the nursery registers. Each nursery takes approximately 10 per cent of additional children, in an endeavour to maintain a high average attendance without overcrowding. The average attendance for the year was 1,167. The number of admissions was 1,017 and the number of discharges 1,061. The waiting list at the end of the year was 4,085. Priority of admission is given to those children whose mothers are entirely dependent on their own earnings, and to the children of widowers and others similarly placed. This makes it very difficult in some districts to offer any hope of admission to children from families where the father is working.

Medical officers from the department visit the nurseries once a fortnight and every child has a medical examination before admission and at routine intervals throughout its stay in the nursery. 7,944 examinations were made during the year.

1,086 children attending the nurseries were known to have had an infectious disease. These were as follows :—

Measles	412
Whooping cough	130
Scarlet Fever.. .. .	36
Mumps	94
Chicken pox	87
German measles	5
Sonne Dysentery	312
Diarrhoea	7
Diphtheria	1
Poliomyelitis	2

64 accidents to children occurred in the nurseries. Of these, 61 were minor accidents, while only 3 were major accidents, 2 of which involved a simple crack fracture of the skull and the third a fracture of a limb.

There were 52 burglaries during the year, resulting in loss of goods and a great deal of wanton damage.

A classified summary was made in November of the circumstances of parents of day nursery children. Approximately one-third of the children came in the priority classes previously mentioned, whilst of the remaining two-thirds the vast majority of fathers were working for wages which were said to be inadequate.

11 nursery students gained the Diploma of the National Nursery Examination Board during the year.

45 nursery assistants successfully completed the Senior Child Care Reserve Course, 37 attending the Manchester courses, while 8 went to a course held by the Lancashire County Council. Six nursery assistants passed the wardens' course. 15 matrons and 8 deputy matrons benefited by a fortnight's refresher course held in Manchester and 20 matrons and deputy matrons attended a two-day refresher course held at Booth Hall Hospital.

The Maternity and Child Welfare Sub-Committee visited 11 nurseries during the year.

Nurseries and Child Minders Regulation Act, 1948.

No new applications were received during the year to register factory nurseries under the Act. The two factory nurseries registered provide accommodation for 60 children.

The Hulme Day Nursery is the only remaining voluntary day nursery in the Manchester area. This nursery was registered under the Act during the year and has accommodation for 40 children.

2 persons were registered as child-minders in 1950. During the year 4 persons names were removed from the register, 3 at their own request and 1 because of the condition of a person living in the premises where children were proposed to be minded. 5 persons remain on the register at the end of the year and are registered to care for a total of 32 children. 1 person was refused registration by the Health Committee.

Day Minded Children.

A register is maintained of relatives and neighbours who care for children of mothers who go out to work. These day-minders care for only one or two children and are exempt from the provisions of the Nurseries and Child Minders Regulation Act unless the person concerned asks to be registered.

The number of day-minded children known to the Department is 754. Applications for day-minders were received from 28 persons.

DENTAL INSPECTION AND TREATMENT OF MOTHERS AND YOUNG CHILDREN.

The difficulties experienced in previous years have continued to prevent the implementation of the scheme for a priority dental service for mothers and young children to meet the requirements of Section 22 of the National Health Service Act, 1946, the chief factors being shortage of dental officers and lack of dental clinics.

The services of two part-time dental surgeons continue to be retained by the Health Committee, and treatment for mothers and young children has been given at the Committee's two existing dental clinics. Treatment for expectant and nursing mothers consists of the extraction of teeth only for the relief of pain or sepsis. Similarly, children are treated by extraction for the relief of pain and silver nitrate treatment in an attempt to arrest dental decay.

Details of treatment completed are shown below.

(a) Numbers Provided with Dental Care.

	Examined	Needing Treatment	Treated	Made dentally fit
Expectant and nursing mothers ..	296	296	296	296
Children under 5	2,048	2,048	2,048	2,048

(b) Forms of Dental Treatment Provided.

	Extractions	Anaesthetics		Fillings	Scalings or Scaling and gum treatment	Silver nitrate treatment	Dressings	Radio-graphs	Dentures provided	
		Local	General						Complete	Partial
Expectant and nursing mothers	1,196	1,196	—	—	—	—	—	—	—	—
					other operations, 21					
Children under 5 ..	507	507	—	—	—	6,938	—	—	—	—

HOME NURSING SERVICE.

The general part of this Service is provided by the Manchester and Salford District Nursing Institution under an agreement between the Institution and the City Council, which commenced on 5th July, 1948, according to the terms of Section 25 of the National Health Service Act of 1946; the agreement provides for termination by either party upon giving twelve months' notice. Principal officers of the Institution are: Mr. Geoffrey Lesson, B.Sc. (Econ.), A.C.I.S., General Secretary and Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V. Cert., Queen's Nurse, Senior Superintendent of Home Nursing.

The City Council employ three special nurses for the care of premature babies, three ophthalmic nurses and one tuberculosis nurse for the home nursing of tuberculous persons resident in the City; full details of these particular portions of the service are included elsewhere in this report.

Administration of the entire Service is affected by the Health Committee through its Domiciliary Care Sub-Committee, and the Medical Officer of Health is responsible to his Committee for the efficient operation of the Service. Liaison between the District Nursing Institution and the Corporation is maintained by a representative of the Institution being a member of the Domiciliary Care Sub-Committee and by contacts between the appropriate professional and administrative officers.

The following information has been provided by the General Secretary of the District Nursing Institution on the general part of the Service undertaken by the Institution during the year 1950:—

A. *Nursing Staff.*

During 1950 the average number of district nurses at work was 78, of whom 52 were full-time general nursing and 26 part-time, giving an equivalent full-time average strength of 65, representing a deficiency on establishment of 12, compared with 10 in 1949.

This figure is analysed into:—

(a) *Nursing grades—*

		(1949)
Queen's Senior Superintendent of Home Nursing	1	—
Queen's Superintendents	4	(4)
Queen's Assistant Superintendents	4	(5)
Queen's female nurses	26	(31)
Queen's male nurses	10	(7)
Queen's student district nurses	5	(10)
State-registered nurses	10	(7)
State-enrolled assistant nurses	5	(3)
	<hr/> 65	<hr/> (67)

(b) *Accommodation—*

Resident in large district nurses' homes under control of a Superintendent	22	(31)
Non-resident, but working from a nurses' home under control of a Superintendent	33	(26)
Operating on "single" or "double" districts	10	(10)
	<hr/> 65	<hr/> (67)

B. *Training.*

The average figure for the year of 5 students (referred to above) represents 11 State-registered nurses who were accepted for the six months post-graduate training for the Queen's Roll at the Ardwick, Harpurhey, and Hulme training homes. Two of the successful students were 1st and 2nd in the National placings. The reduction in the number of students compared with the previous year (20) can be ascribed to the uncertainty of the salary scales for Queen's district nurses which prevailed during the year.

During the year the second of a series of Refresher Courses was held in Manchester for all qualified Queen's nurses on the staff, one-fifth of all nurses attending the course each year. In addition, 4 nurses attended Resident Courses organised by the Queen's Institute of District Nursing.

On behalf of the Queen's Institute of District Nursing an experimental course of instruction for State-enrolled assistant nurses has been organised at the Bradford Home, and during the year two nurses received a 3-months course of instruction.

One Queen's nurse was also awarded a scholarship to enable her to take a Health Visitor Certificate course of training.

C. *Transport.*

At 31st December, 1950, 18 cars and 10 auto-cycles were in regular use "on the district" as compared with 17 cars and 9 auto-cycles in 1949. Of these, 10 cars and 3 auto-cycles were the property of the Institution; 1 car and 1 auto-cycle the property of the Corporation; the remaining 7 cars and 6 auto-cycles were owned by the nurses and an allowance granted for their use on official nursing duties. The majority of the remaining 50 nurses use bicycles, although a few either walk or make use of public transport.

The cars are used mainly for supervision of areas and training of students; for districts distant from the area headquarters; by male nurses, whose districts are more extensive than those of female nurses.

Experience has shown that not all female nurses are suited to drive auto-cycles and, moreover, the latter have, on the whole, not been found reliable and able to withstand the strain of the continual starting and stopping many times a day. Motor-cars are far more suitable and also give protection from inclement weather and so save absence from duty through sickness, apart from conserving the energies of the nurse. The recent substantial increase in the salary scales for district nurses lends support to the Institution's aim to provide more cars on the district, thus enabling more nursing visits to be paid per nurse.

D. *Sickroom equipment loans scheme.*

This Scheme, organised by the Institution in co-operation with the British Red Cross Society, makes available the following articles for loan to patients free:—

*Air beds	Hot water bottles
Air rings	Inhalers
Bed bottles	Kidney bowls
Bed cradles	Rubber sheets
Bed pans	Sputum mugs
Bed rests	Steam kettles
Bed tables	Walking sticks
Commodes	*Water beds
*Crutches	Wheel chairs
Feeding cups	Bed linen (in emergency cases)
NOTE.—*A small weekly charge is made for these articles.	

Statistics for the year ended 4th July, 1950:—

Total number of articles issued	3,708
Issued by district nurses	2,686
Issued from Red Cross Depots	1,022

Patients on the books of the district nurses who received loans during the year numbered 1,127 (equivalent to 12 per cent of total patients), whilst loans were also made by district nurses to 453 persons, on production of a doctor's or other health worker's certificate, who were not being nursed by the district nurse.

E. *Statistics of nursing work.*

Section I.

		Per cent. increase on 1949	Per cent. increase on 1948
Cases on the books 1st January, 1950	1,049	39	73
Add—new cases during 1950	8,341	16	56
Total cases nursed	9,390	18	57
Deduct—cases taken off books during 1950	8,194	—	—
Cases on the books 31st December, 1950	1,196	14	59

Nursing visits paid during 1950 totalled 210,949 which was an increase of 11 per cent. on 1949 and 60 per cent. on 1948.

The increased volume of nursing work undertaken since the introduction of the National Health Service Act, 1946, as shown by the above figures, can be attributed to the following factors :—

- (a) the fact that a free service is now available, and wider knowledge of the Service by the general public,
- (b) an increased number of old people nursed at home because of lack of hospital accommodation,
- (c) an increase in the number of injections of penicillin and other drugs,
- (d) certain cases are now passed on to the nurses which before the Act were dealt with by the doctors themselves, e.g., injections,
- (e) use of the service by patients who formerly went either into a nursing home or employed a private nurse.

Section II. Classification of new cases.

(1) Notifiable Infections :—440	
(a) Puerperal pyrexia	5
(b) Ophthalmia neonotorum	2
(c) Cerebro-spinal fever	1
(d) Influenzal pneumonia	39
(e) Primary pneumonia	147
(f) Broncho pneumonia	132
(g) Measles	12
(h) Whooping cough	5
(i) Pulmonary tuberculosis	67
(j) Non-pulmonary tuberculosis	19
(k) Erysipelas	10
(l) Scarlet fever	1
(2) Non-notifiable infections	3
(3) Medical	4,928
(4) Surgical	1,544
(5) Gynaecological	123
(6) Complication of pregnancy	41
(7) Complication following childbirth	71
(8) Chronic diseases	1,191
Total	8,341

The 8,341 new cases during 1950 were in the following age-groups :—

Age-groups	New cases	Per cent.
0—4	530	6
5—14	390	5
15—64	3,953	47
Over 65	3,468	42
	8,341	100

The above figures of *new* cases however do not give a true analysis of the age-groups of patients nursed during the year. At any one time the proportion of patients over the age of 65 is in the region of three-fifths. Of these aged patients, roughly 70 per cent. are female and 30 per cent. male, and their age groups are as follows :

	Per cent.
65—70	40
71—80	43
81 and over	17
	100

Section III.

Sources of reference of new cases :—

General practitioners	7,223
Hospitals	708
Personal applications	253
Local health authorities—	
Maternity and Child Welfare Department	102
Tuberculosis Service	3
Welfare Services Department	13
Miscellaneous	39
Total	8,341

CONVALESCENT HOMES SECTION.

In the year 1950 a total of 147 adult persons were referred to convalescent homes ; this figure is the same as in the previous year. 128 persons were sent to the West Hill Convalescent Home, Southport, 6 to the Lear Home of Recovery at West Kirby, 13 to the Blackburn and District Convalescent Home at Lytham St. Annes. All these establishments are conducted by voluntary organisations.

53 recommendations for convalescence were cancelled during the year ; particulars of these are as follow :—

(a) cancelled by doctor—patient unfit to travel	5
(b) cancelled by the person concerned—unable to await a vacancy at a convalescent home	31
(c) persons not keeping appointments	17
Total	53

In addition to the adult convalescents referred to above, some children are sent to the Dr. Garrett Memorial Home at Conway, North Wales, which is administered by the Health Committee, whilst other children are covered by the provisions of the Education Committee.

Details concerning the Dr. Garrett Memorial Home are included elsewhere in this report.

DOMESTIC (HOME) HELP SERVICE.

The total establishment of Home Helps was 60 full-time female employees holding superannuable appointments ; this figure is the same as in the previous year.

On January 1st 58 Home Helps were employed ; 15 were recruited and 19 resigned during the year ; the average number employed throughout the year was 57.

Co-ordination of the service is effected by the Organiser, who by the use of her own motor car for transport purposes—financed by the Committee, visits the homes of persons receiving assistance and supervises the work of the Helps.

A slight increase in the user of the service was experienced, as compared with 1949 ; this was due mainly to the extension of part-time service, particularly in relation to aged and infirm persons.

During the year applications for assistance were received from 1,314 households ; 679 of these were cases following confinement and the remaining 635 were cases of sickness, old age or infirmity. Outstanding applications from 1949 numbered 94.

Source of applications for assistance were as follow :—

Source	No. in cases following confinement	No. in cases of sickness, old-age, etc.	Totals
Personal application (by letter, telephone, or visit to the office by applicant or a representative)	418	424	842
Child welfare centre, health visitor, or midwife	209	42	251
Hospital almoner	52	65	117
Medical practitioner	—	40	40
Tuberculosis Centre	—	39	39
Welfare Services Department	—	19	19
District Nursing Association	—	3	3
National Assistance Board	—	3	3
Totals	679	635	1,314

LANGHO COLONY FOR EPILEPTICS.

By Dr. G. A. Thompson, Medical Superintendent.

STAFF.

Full time—

G. A. Thompson, M.R.C.S., L.R.C.P.	..	..	..	..	Medical Superintendent.
Miss E. J. Smith, S.R.N., R.M.P.A., R.M.N.	..	..	..	..	Matron.
S. A. C. Bunn, A.H.A., F.C.C.S.	..	..	..	..	Secretary-Steward.

On the 31st December, 1950, there were maintained in the Colony 266 male and 282 female Colonists, of whom 226 were chargeable to the Manchester Corporation and 322 to other Authorities, as under :—

<i>County Boroughs.</i>						<i>County Councils.</i>					
Barrow-in-Furness	..	..	..	..	1	Cheshire	..	..	..	..	10
Birmingham	..	..	..	..	5	East Suffolk	..	..	..	..	3
Blackburn	..	..	..	..	23	Glamorgan	..	..	..	..	3
Blackpool	..	..	..	..	11	Lancashire	..	..	..	..	137
Bolton	..	..	..	..	7	Leicester	..	..	..	..	1
Bootle	..	..	..	..	3	Middlesex	..	..	..	..	5
Bradford	..	..	..	..	2	Monmouth	..	..	..	..	1
Burnley	..	..	..	..	13	Surrey	..	..	..	..	8
Croydon	..	..	..	..	2	Worcester	..	..	..	..	1
Ipswich	..	..	..	..	2	Yorkshire, North Riding	..	..	..	..	1
Leeds	..	..	..	..	2	Yorkshire, West Riding	..	..	..	..	12
Lincoln	..	..	..	..	2						
Liverpool	..	..	..	..	17						
Newcastle-on-Tyne	..	..	..	..	1						182
Oldham	..	..	..	..	3						
Preston	..	..	..	..	6						
Salford	..	..	..	..	29						
Southampton	..	..	..	..	3						
Stockport	..	..	..	..	2	Total :	322.				
Wallasey	..	..	..	..	1						
Warrington	..	..	..	..	4						
Wigan	..	..	..	..	1						
					140						

The total number of epileptic seizures during the year was 27,985.

	Severe	Slight	Total	Average	Numbers maintained
Male	9,723	5,505	15,228	42	266
Female	7,212	5,545	12,757	35	282
Totals	16,935	11,050	27,985	77	548

Out of the above totals, four male colonists had 899 severe and 680 slight fits, 21 female colonists had 2,003 severe and 1,394 slight seizures.

The classification of the incidence of seizures during the year is, as follows :—

	Male	Female
Status epilepticus	—	1
Decreased incidence	63	114
Increased incidence	32	12
No change	104	152
No seizures during the year	38	60
Unclassified (including recent admissions and non-epileptics)	22	57

There were :—

	Male	Female	Totals
Admissions	46	41	87
Re-admissions	22	3	25
Discharges	57	35	92
Deaths	5	9	14

Treatment at other hospitals and clinics for :—

	Male	Female
Fractures	23	24
Orthopaedic	1	4
Surgical	7	11
Ear, nose and throat	—	4
Skin	7	9
X-rays	1	1
Radiotherapy	—	7
Physiotherapy	—	1
Medical	—	1
Manchester Eye Hospital	2	—
„ Orthopaedic Clinic	1	—
„ Royal Infirmary	2	—
Surgical boots and appliances, etc.	2	6
Blackburn Royal Infirmary—for operative treatment	3	4
Queens Park Hospital—for operative treatment	—	1
Accrington Victoria Hospital—for operative treatment	—	1
Manchester Royal Infirmary—for operative treatment	1	—
Transfers to :—		
Whittingham County Mental Hospital	2	2
Prestwich Mental Hospital	—	1
Maghull Epileptic Colony	—	1

The employment of colonists on 31st December, 1950, was as follows :—

	Male	Female
Domestic—the homes, etc.	94	103
Domestic—Administrative block	12	14
Laundry	4	22
General kitchen	1	9
Sewing room	7	33
Coal yard	4	—
Engineer's department	3	—
Carpentry, etc.	3	—
Shoemaking	2	—
Office and stores	6	—
Farm	17	—
Kitchen garden	4	—
Grounds, sports field, etc.	46	—
Sick and unemployable	26	40

General Remarks.

With exceptions, the average case now admitted to the Colony is of a rather poor type, with consequential deterioration in the standard of patients in the Homes. This is especially applicable to the male division. Fortunately, there is no real staffing difficulty on the male side ; the female staff shortage has, in part, been relieved by the employment of part-time staff, but this is not an adequate solution to the problem as the same interest is not generally shewn by part-time staff as by full-time attendants.

The general health of the colonists is good, and there are few bed patients. Almost all the colonists are employed at least some part of the day and, in a number of cases this reflects great credit on the nurses and attendants in charge.

The Occupational Therapy Department is making steady progress, and expansion in this direction is handicapped only by lack of space.

During the year under review, a steady improvement has been maintained in the furnishings of the Homes, new easy chairs, interior sprung mattresses and dining tables being installed according to schedule. These improved domiciliary amenities are greatly appreciated by the colonists. The design and cut of patients' clothing has been modernised, as we are attempting to get away from the old institutional idea of patients being dressed alike—this appears to be a great aid to the colonists' morale.

Dances and picture shows, interspersed by occasional concerts and whist drives, have been held almost weekly—the new cinema projectors installed during the year proving a great asset ; bowls, tennis, putting, etc., are available for colonists and resident staff, but the weather during the past 12 months has not been an incentive for games of this type.

A full programme of inter-house cricket and football matches has been carried out, and cricket caps were presented to the winning cricket team ; these games are additional to the usual weekly Colony cricket or football matches with outside teams.

A well-stocked patients' library is being built up, and increased numbers of daily papers and periodicals, etc., are now available for patients' use.

The colonists' annual trip to the coast passed off quietly and uneventfully. This is probably the high-light in the life of the average colonist here, and it is impossible adequately to convey their appreciation of this outing.

We were fortunate in having a fine day for our Annual Sports, when Alderman James and Councillor Mrs. Knight kindly presented the prizes.

I also feel that some mention should be made of the new Colony Canteen—the good work it is doing, and what a boon the catering facilities offered have been to visitors.

Finally, a most progressive year was rounded off by the usual Christmas festivities, including a Fancy-dress Ball ; a year made all the more enjoyable by the thought that one has been able to do something to lighten the burden of those afflicted with epilepsy.

DR. GARRETT MEMORIAL HOME.

By H. Fisher, Secretary-Steward.

STAFF.

Full time—

H. Fisher.. 	Secretary-Steward.
Florence E. Ray, S.R.N., S.C.M. 	Matron.

On the 1st January, 1950, 56 children were in residence.

The total number of admissions during the year was 437, an increase of 99 as compared with the previous year.

Discharges numbered 403, an increase of 36 as compared with the previous year.

The number remaining on the 31st December, 1950, was 90, an increase of 34 as compared with the same date in 1949.

The following is a summary of the diagnoses prior to admission :—

Debility	150
Anaemia	52
Diseases of the respiratory system	95
Chorea	11
Rheumatic and cardiac disease	8
Post-appendectomy	4
Malnutrition (and underweight)	24
Nervous debility	31
Post-pneumonic debility	10
Habit spasm	5
Post scarlet fever	14
Post measles	1
Miscellaneous	29
	437

Of the 403 children discharged, 349 were recorded as “ fit,” 38 as “ improved ” and 16 as requiring further hospital treatment. 390 children gained weight and the weight of 13 children remained unchanged.

During residence, 320 children received nursing treatment for the following :—

Asthma	5	Injuries to limbs (minor)	7
Boils, styes, septic sores	26	Mumps	1
Bronchitis and bronchial pneumonia	3	Nausea, etc.	11
Bruises, cuts, sprains, etc.	10	Nocturnal Enuresis	9
Chicken pox	21	Otitis media and otorrhoea	8
Conjunctivitis	12	Scarlet Fever	12
Coryza and coughs	50	Threadworms	6
Dental abscess	6	Tonsillitis and sore throat	93
Eczema and other skin conditions.. .. .	4	Miscellaneous	15
Influenza	21		

The recruitment of Nursing and Attendant staff improved towards the latter part of the year and this factor, coupled with the governing Sub-committee's arrangement of accepting admissions weekly instead of fortnightly, helped to increase the number of children maintained,

AMBULANCE AND TRANSPORT SERVICE.

By G. Marron, A.M.I.Mech.E., M.I.E.I., F.I.M.I., Manager,

The City Council is the responsible authority for arranging the conveyance of sick and injured persons, mental defectives, expectant or nursing mothers from places in the City to places in or outside the City in the following circumstances :—

1. As necessary when requested by an authorised person.
2. In cases of urgent emergency.

This responsibility is undertaken by the Manchester Ambulance Service. The fleet now consists of 55 ambulances, four “ shooting brake ” type vehicles and four “ sitting case cars,” the disposition of which is as follows :—

Belle Vue Street (Main Garage)	..	31 ambulances.	2 saloon cars (sitting cases).
Monsall Sub-depot	.. .. .	6 ambulances.	
Deansgate Sub-depot	.. .. .	4 ambulances.	
Chorlton Sub-depot	.. .. .	6 ambulances.	2 saloon cars (sitting cases).
			3 shooting brakes (sitting cases).
Withington Sub-depot	.. .. .	4 ambulances.	
Crumpsall Sub-depot	.. .. .	2 ambulances.	1 shooting brake (sitting cases).
In reserve	.. .. .	2 ambulances.	

The Headquarters of the Service are at the Main Garage, Belle Vue Street, and all Sub-depots are connected to the Main Garage by direct telephone lines. All requests for ambulances, etc., including “ 999 ” emergency calls are received at the Main Garage, and such calls are then re-directed to the appropriate Sub-depot.

An asset to the service in the distribution of this work is a special indicator which has been installed in the control room at the Main Garage. By means of rotary switches and indicator lamps, this shows at a glance the number of vehicles operating, either accident and general, from the Main Garage and each Sub-depot and the actual numbers available for duty.

As from the 6th February, 1950, the Ambulance Service operated in accordance with the provisions of Section 24 of the National Health Service (Amendment) Act, 1949. This means that the financial responsibility for the return of patients discharged from hospital within three months from date of admission will rest upon the local health authority for the area from which the patient originally travelled to hospital. Before this was put into practice, the Ambulance Service operated in 1949 a yearly mileage outside Manchester of 152,247 miles. The period under review (operating in accordance with the provisions of Section 24), shows operating mileage outside Manchester as 36,824, a reduction of 115, 423 miles. This reduction was, to a great extent, counter-balanced by an increase in mileage operated on district work. This will be noted in the detailed operational record of the Service which follows. The increase in district work is partly due to the service receiving discharges under

Section 24 from such hospitals as Pendlebury Childrens and Salford Royal, which previously were the responsibility of the local ambulance service. Another reason is the steady increase in the number of out-patient cases which the department is called upon to convey. During the period under review there has been an increase in the number of calls and also in the number of patients removed as compared with 1949.

	Calls	Patients removed.
1949	77,888	104,726
1950	82,549	116,658
Increase	4,461	11,932

OPERATIONAL RECORD.

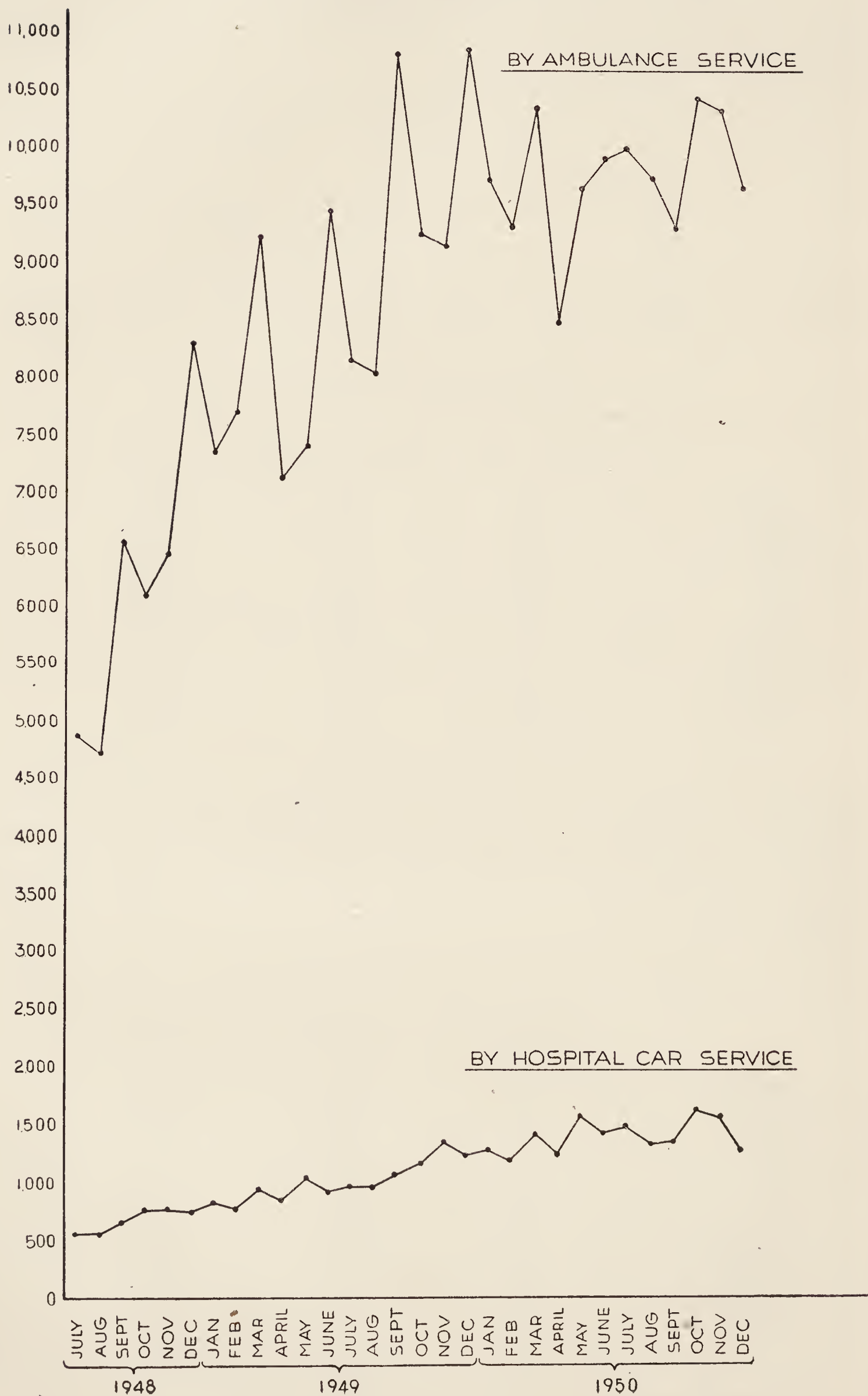
	No. of calls	Patients removed	Mileage
January	7,118	9,729	69,937
February	6,611	9,274	60,922
March	7,376	10,360	66,432
April	6,409	8,577	56,201
May	7,055	9,607	63,306
June	7,081	9,859	65,009
July	7,048	9,901	63,542
August	6,921	9,723	61,320
September .. .	6,472	9,266	59,861
October	7,135	10,400	68,438
November	6,756	10,307	68,507
December	6,567	9,655	65,302
	82,549	116,658	768,777

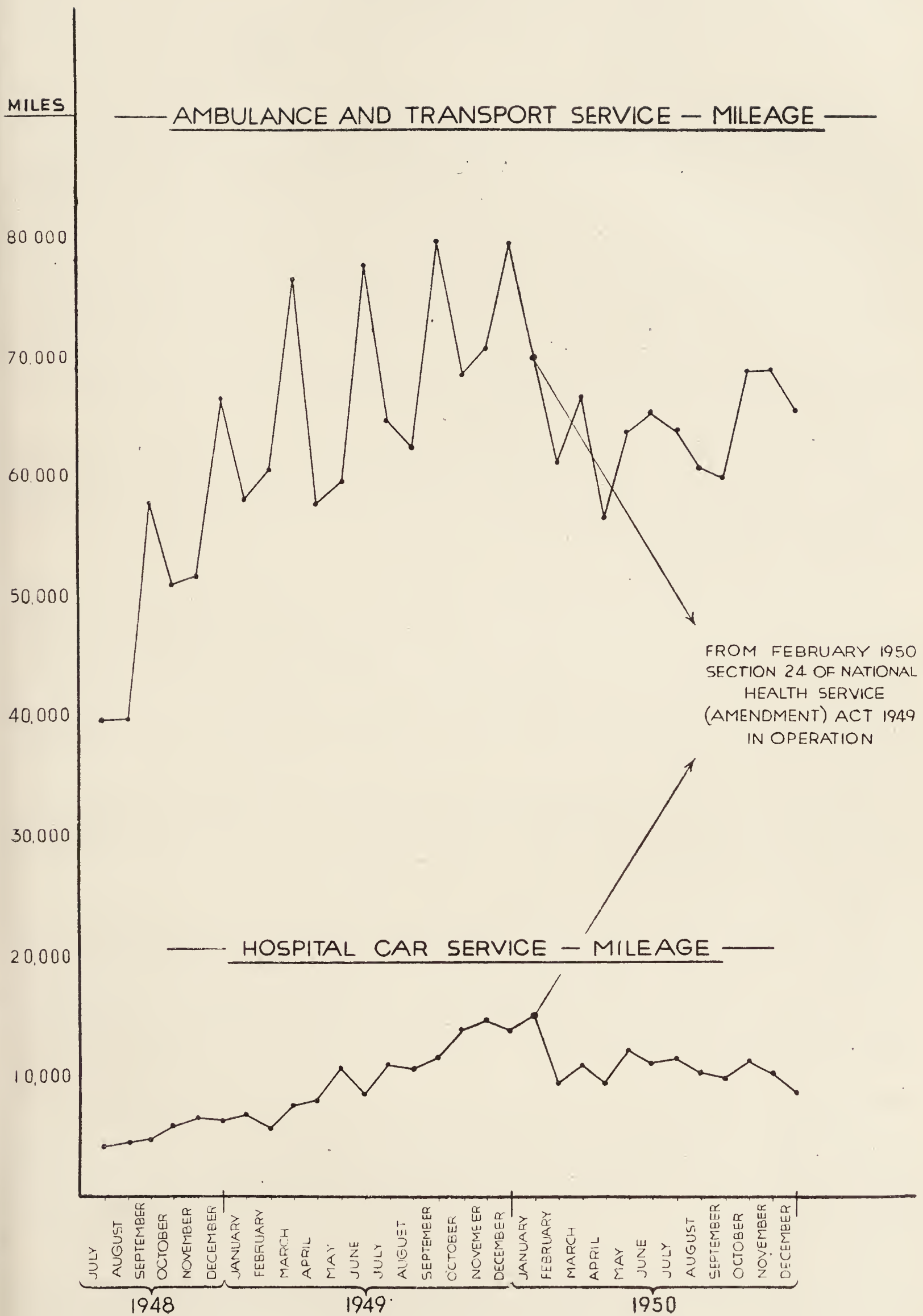
Of this total 997 patients not normally resident in Manchester were conveyed over distances totalling 36,824 miles, which is 4.8 per cent. of the total mileage operated by the ambulances. 77 journeys conveying 85 patients were made of over 100 miles return.

ANALYSIS OF REMOVALS.

	Accidents	General	Infectious
January	519	8,690	520
February	530	8,209	535
March	554	9,246	560
April	531	7,543	503
May	643	8,375	589
June	657	8,640	562
July	674	8,643	584
August	713	8,406	604
September .. .	648	8,029	589
October	590	9,145	665
November	611	9,075	621
December	739	8,449	467
	7,409	102,450	6,799
Total		116,658	

AMBULANCE AND TRANSPORT SERVICE PATIENTS REMOVED





Distribution of Ambulance Calls.

During 1950 some 82,549 requests for ambulance transport were received and the following indicates the nature of the calls :—

Accidents	7,605
General	71,052
Infectious	3,892

The increased demand for ambulances is still being maintained and the present resources of the Service are being constantly overtaxed. Requests have been made to Hospital Authorities and general practitioners, etc., to reduce calls to a minimum, and to ensure that ambulances should only be ordered for patients where there is a genuine need.

Patients from H.M. Prison Hospital, Strangeways, for removal to other prison hospitals in the country are the responsibility of this Service. During the year, 13 patients were so conveyed, the mileage involved being 5,021 miles.

On Monday, the 16th October, 1950, the Police premises at Goulden Street were vacated and the ambulance fleet garaged there was transferred to, and now operates from Deansgate Sub-depot.

The delivery of six new ambulances during the year enabled a similar number of vehicles to be written off. They had given good service during the years of operation but were no longer roadworthy. The average age of the ambulance fleet is seven years.

Transport of Out-Patients.

The two Spurmobuses purchased in 1949 for the transport of out-patients to meet the need of some of these patients who were handicapped by plaster casts, splints, etc., have been a great asset to the Service. Each vehicle provides sitting accommodation for 9 patients, all of whom can enter from the rear in a similar manner to that of the ambulances. The entrance from the rear has been arranged so that the step line is now " low " loading and presents little difficulty to handicapped patients.

Throughout the period under review the Medical and First-Aid Equipment carried on the ambulances has been continually supplemented so that it can meet all anticipated requirements.

Removal of Infectious Cases.

2,005 cases of infectious disease, other than Tuberculosis, were removed to Monsall Hospital, and 141 cases were removed to outside hospitals chiefly Ladywell. 497 patients were discharged to home addresses and other institutions, a total of 2,643 cases being removed. In addition there were 383 tuberculosis patients removed to sanatoria, and 3,773 out patients conveyed to clinics and sanatoria for treatment.

Municipal Car Pool.

In addition to the Ambulance Service vehicles, the Municipal Car Pool, consisting of 10 saloon cars is also operated from the Main Garage at Belle Vue Street. The cars are utilised for Committees and officials of the various Corporation departments. The mileage operated in this section during 1950 was 172,516 miles.

The major repairs and maintenance of the fleet are now undertaken at the Deansgate Sub-depot owing to the workshop at Headquarters being too small, and the working space so cramped that the mechanics at certain times were compelled to use space in the garage area. The workshop at Monsall Depot undertakes minor repairs which in turn eases the flow of vehicles for maintenance at the Deansgate workshop.

Hospital Car Service.

The Hospital Car Service which is administered by the local branch office of the Women's Voluntary Services on behalf of the Manchester Ambulance Service, continues to augment the Ambulance Service, and is mainly concerned with the transfer of sitting-cases to and from hospitals within the City for out-patient treatment, and in-patients on discharge from hospitals within the City to their homes.

During 1950, an average of 20 drivers were utilised each month. These 20 drivers made 7,761 journeys and removed 16,781 patients a distance of 129,060 miles. In spite of a reduction in the number of drivers available compared with the previous year, and a reduction in the mileage operated outside Manchester, consequent upon the operation of Section 24 of the National Health Service (Amendment) Act, 1949, the operational figures of this branch of the service show an increase compared with the 1949 figures.

The following table shows the monthly operational record of this service :—

1950	Number of Drivers	Number of Journeys	Number of Patients	Total Mileage
January.. .. .	22	636	1,289	14,955
February	22	537	1,178	9,124
March	21	662	1,437	10,783
April	20	565	1,217	9,521
May	20	738	1,569	12,048
June	20	662	1,432	11,035
July	20	708	1,479	11,384
August	21	633	1,333	10,336
September	18	648	1,380	9,993
October	17	738	1,631	11,048
November	15	683	1,572	10,413
December	15	551	1,264	8,420
Totals		7,761	16,781	129,060
Corresponding totals 1949		6,117	12,010	122,404

Commercial Vehicles.

Commercial vehicles, consisting of four lorries and two vans are employed. These are used by other departments of the Corporation, and the mileage operated during 1950 was 59,803 miles.

Bedding and General Disinfection Service.

A service is provided at Monsall Sub-depot for the disinfection of clothing and bedding. Three bedding vans are employed on the collection and return of these articles and during 1950 removed for disinfection 39,714 articles and 1,052 library books, necessitating a mileage of 18,989 miles. In addition to the above 19,424 articles of second hand clothing and 718 bales of cotton waste have been fumigated for export.

Mobile Immunization Unit.

This vehicle operates every week-day touring various parts of the City and provides facilities for immunization against diphtheria. It operates with a staff of a doctor, nurse, recording clerk and driver, and is garaged, maintained and serviced at Monsall Sub-depot.

Operating Mileage.

Ambulance Fleet	768,777
Municipal Car Pool	172,516
Commercial Vehicles.. .. .	59,803
Bedding Vans	18,929
Immunization Unit	8,367
	<hr/>
	1,028,392 miles.
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Cleansing Clinic.

The Cleansing Clinic at Monsall Sub-depot deals with the following types of personal cleansing, viz. :—

- (a) the treatment of scabies in adults and children.
- (b) the disinfestation of persons before removal to Corporation houses, and
- (c) the cleansing of verminous persons, both voluntary and compulsory.

The following table shows the number of treatments in their various classifications :—

	Scabies	Voluntary cleansing	Compulsory cleansing	Disin- festations	Total
January	66	39	—	—	105
February	66	44	3	8	121
March	86	33	11	13	143
April	31	25	3	3	62
May	57	44	24	27	152
June	56	27	22	7	112
July	37	26	25	9	97
August	91	53	—	38	182
September	67	52	17	30	166
October	58	52	26	14	150
November	45	61	24	5	135
December	2	52	9	—	63
Totals	662	508	164	154	1,488

MENTAL HEALTH SERVICE.

By L. R. L. Edwards, M.D., D.P.H.,
Senior Assistant Medical Officer of Health.

Staff.

A staff of 20 investigates all cases of mental illness and mental deficiency referred to the Service, and deals with the provision of Occupation Centre training for defectives. Officers hold appropriate qualifications.

Committee.

All questions arising out of the proposals of the Council under the National Health Service Act, 1946, relating to mental health are dealt with by the Mental Health Sub-Committee.

The Committee membership is 14 and includes a representative of the Council of the Manchester and Salford Nursing Institution.

Meetings are held on the first Tuesday in the month.

Incidence of Mental Illness

On the 31st December, 1950, 2,388 persons of unsound mind and 2,282 mental defectives were known to the authority. These figures represent an incidence rate of 3·41 of mental illness and 3·24 of mental deficiency per thousand of the population. Tables at the end of this report show the distribution and wide variation in the wards of the City of mental illness and deficiency according to age and sex. Mentally ill persons are accommodated in hospitals, including Springfield, Lancaster Moor, Prestwich, Winwick, Whittingham, Rainhill and Parkside. Mental deficiency hospitals include Brockhall, Calderstones, Royal Albert, Swinton and Cranage Hall. No information is available concerning mild mental disorders, as few of these are reported to the Service; they are treated at hospital out-patient clinics and by general medical practitioners.

On the 31st December, 1950, the waiting list for Mental Hospitals was.. 70

On the 31st December, 1950, the waiting list for Mental Deficiency
Hospitals was 70

Work of Officers under the Lunacy and Mental Treatment Acts, 1890-1930.

Three male officers are employed, and the tables below outline their work of investigation, but do not include all subsequent visits to persons on the waiting list for hospital admission.

Sources of Requests

	Male	Female	Total
General Medical Practitioners	176	204	380
Hospitals and Clinics	102	118	220
Other Corporation Departments	10	22	32
Police Authorities	26	15	41
General public	19	22	41
Other sources*	41	53	94
Total	374	434	808

* Other sources—includes patients dealt with on behalf of other Authorities.

Visits and Action Taken.

	Male	Female	Total
Recommended for hospital admission			
(a) Voluntary	11	18	29
(b) Temporary	1	—	1
(c) Certifiable.. .. .	202	174	376
Referred for Medical Report			
(a) to General Medical Practitioner	7	13	20
(b) to Psychiatrist	3	10	13
Referred to other Departments or Agencies.. ..	12	17	29
No further action necessary	51	102	153
Total	287	334	621

Work of Officers in After-care of Mental Illness—National Health Service Act, 1946. Section 28.

One female Psychiatric Social Worker was employed up to the end of August, 1950. From then to the end of the year these visits have been additional work for the five female Visitors employed on mental deficiency duties.

	Male	Female	Total
Number of visits or interviews	396	405	801
Removed from care	72	62	134
Referred for Medical Report			
(1) to General Medical Practitioners	4	5	9
(2) to Psychiatric Clinic	10	12	22
Interviews with other Agencies, Departments or employers	27	10	37
Total	509	494	1,003

Co-ordination with Hospitals

I.—Services for Hospitals

(a) *Priority Classifications for Mental Deficiency Hospitals*

Admissions to these hospitals are arranged through the Bed Bureau of the Regional Hospital Board established at their central offices.

The table below sets out the authority and number of these admissions.

Method of Admission	Male	Female	Total
By petition	12	9	21
Placed by parent	15	3	18
Court Order	7	—	7
Order of the Secretary of State	2	2	4
Place of safety	1	4	5
Total	37	18	55

Defectives reported to the Service as in need of admission to hospital are interviewed by the Medical Officer, who completes a detailed medical report and codes the priority group for the Bed Bureau.

The Priority Group classifications are as follows :—

- “ 0 ”—not urgent, institutional care desirable but present means of care tolerably adequate.
- “ 1 ”—provision of institutional care highly desirable on account of unsatisfactory home conditions, lack of training facilities and minor behaviour problems.
- “ 2 ”—provision of institutional care urgent on account of really inadequate present care or serious behaviour problems.
- “ 3 ”—provision of institutional care immediately urgent, e.g. complete absence of any means of care or supervision, and gross behaviour problems.

The waiting list for mental deficiency hospitals on 31st December, 1950, was 70 and these have been classified. In addition persons requiring admission to mental hospitals are reported to the Bed Bureau established at Prestwich Mental Hospital.

(b) *Reports.*

Visitors of the Service complete for the mental deficiency hospitals reports on defectives, including their home circumstances. These are shown in the table below :—

Licence, Progress and Recertification

Reports	Males		Females		Total
	Under 16	Over 16	Under 16	Over 16	
On licence	49	87	9	42	187
For progress	4	81	2	59	146
For recertification	17	81	6	59	163
Total	70	249	17	160	496

(c) Escape enquiries

During the year there were 9 escapes from mental deficiency hospitals. While the Police are notified by the hospitals, in certain cases the Service is also asked to make the necessary enquiries.

(d) Liaison with Mental Hospitals.

The Service forwarded 32 Social Histories. Each history requires for completion a period varying up to an hour of personal interview. They are additional to the case particulars and Orders completed at the time of admission of each patient to hospital.

II.—Services by the Hospitals

The Regional Hospital Board has co-operated with the Service through its provision of a domiciliary specialist service in the examination of mentally ill and mentally defective persons about whom there is considerable doubt. This co-operation has been most helpful, as it has facilitated the admission of cases to hospital beds or places in institutions. This measure is most valuable in cases remanded by the Court for medical examination before a decision is reached by the Magistrates.

Work of Visitors under the Mental Deficiency Acts, 1913-1938.*Districts.*

The City has been divided into five districts to each of which a Visitor has been appointed.

Notifications.

These are received from the School Health Service and other sources by the Central Office, and are passed to the appropriate Visitor.

New Cases.

New cases referred during 1950 have been classified according to sex and are set out in the table.

	Education Act, 1944		Other Sources		Total
	Section 57 (3)	Section 57 (5)	Subject to be dealt with	Not subject to be dealt with	
Males	27	20	—	7	54
Females	28	8	3	1	40
Total	55	28	3	8	94

Visits.

Each home is visited and a case report completed. In addition to initial steps for the care and supervision of these cases, the Visitor must periodically report on all other defectives. Such reports are completed as part of her statutory duties, and a register of all cases is kept by the Central Office.

The number of visits made during the year classified according to age and sex were as follows :—

	Male		Female		Total
	Under 16	Over 16	Under 16	Over 16	
Number of visits	485	1,775	432	1,615	4,307

Removal from Register

The following table classifies according to age and sex removals during 1950 :—

	Male		Female		Total
	Under 16	Over 16	Under 16	Over 16	
Capable of managing themselves and their affairs.. .. .	—	63	—	41	104
Transferred to voluntary supervision	—	28	—	16	44
Transferred to other Authorities..	1	9	2	7	19
Lost sight of	—	34	1	39	74
Died	—	9	2	8	19
Other causes	20	21	7	7	55
Total	21	164	12	118	315

Voluntary Supervision.

During the year 224 cases were removed from Voluntary supervision.

Other Work of Mental Health Visitors.

	Number during year
(1) Escort of defectives to places of employment	17
(2) Interviews between employers and defectives	14
(3) Attendance at Court proceedings	2
(4) Arrangement of individual holidays for defectives	3

(B.A.) Social Administration Students.

During the year seven students accompanied the Visitors on Wednesdays during University term time. Lectures were given by members of the Service. Instruction visits to Occupation Centres and to Cheadle Royal Mental Hospital were included in their programme.

Co-operation with other Departments.

There is close liaison with the Children's Department and the Probation Service, also with officers of the Welfare Services Department and with officers of the Maternity and Child Welfare Section of the Health Department, including those who are concerned with the administration of Section 47 of the National Assistance Act. Disablement Rehabilitation Officers of the Ministry of Labour are also consulted by the Visitors.

Co-operation with Voluntary Agencies.

The Service delegates no duties to voluntary associations but its main links are with the N.S.P.C.C. and the National Association for Mental Health. In necessitous cases help outside the scope of National Assistance is obtained from the British Red Cross Society and City League of Help and Family Service Units. The Salvation Army and Church Army take an interest in the work and have helped in the provision of hostel accommodation and in the supervision of borderline cases.

Training of Mental Health Workers.

Mental Health Visitors and duly Authorised Officers are fully trained. Supervisors of Occupation Centres hold the Certificate of Experienced Workers of the National Association and train those recruited as Assistants to the Centres. Apart from these Assistants, no one has been appointed who has not had considerable experience, and in 1949 all officers attended a refresher course. During the year the Mental Health workers visited Styal Cottage Homes.

Disposal of Cases not admitted to Institution.

Those ascertained as "subject to be dealt with" remain at home under the various forms of care outlined below. When the notification is cancelled by the School Health Service children return to ordinary primary schools.

	Guardianship	Statutory Supervision	Notification Cancelled	30/12/50 Action not yet taken	Total
Male	—	30	—	7	37
Female	—	29	—	8	37
Total	—	59	—	15	74

Others included in the above table are encouraged to attend Occupation Centres.

Occupation Centres.

The Centre at Welfare House, Victoria Park and the Centres at Royal Oak Road, Wythenshawe and at the Sunday and Ragged School, Holland Street, Ancoats, are named as below :—

	Pupils on register 31/12/50
Victoria Park Occupation Centre	63
Wythenshawe Occupation Centre	27
Ancoats Occupation Centre (opened 28th August, 1950)	34
Waiting list 31st December, 1950	21

The attendance at these Centres is shown below :—

	Male		Female		Total
	Under 16	Over 16	Under 16	Over 16	
Victoria Park	20	9	14	3	46
Wythenshawe	12	2	6	2	22
Ancoats	14	2	8	1	25
Total	46	13	28	6	93

These figures are based on the average daily attendance in November.

Pupils on the waiting list reside in the north of the City, in the Blackley, Moston, Crumpsall and Lightbowne Wards. Several premises in this area were inspected by the Committee, but arrangements were not found suitable.

Pupils from other Authorities.

Five pupils from the area of the Cheshire County Council attend the Wythenshawe Centre ; three pupils from the Lancashire County Council area and one pupil from the County Borough of Stockport attend the Victoria Park Occupation Centre. These local authorities reimburse the City Council.

School Holidays.

Parents reaffirmed their desire that holidays at these Centres should coincide with those in the primary schools.

Visit and Inspection of Occupation Centres.

Members of the Committee visited the Occupation Centres on the 19th September, 1950.

Ministry of Health Reports on Occupation Centres.

Reports from an Inspector of the Board of Control on the Victoria Park and Wythenshawe Centres were received from the Ministry of Health. These commented on the redecoration and improved toilet facilities at Victoria Park and on the good work carried out at the Wythenshawe Centre. At the latter Centre there was a high average attendance and a wide age range of from three years to 25 years of age. Additional cupboard storage space was suggested, and with the owners' consent this was arranged. Resurfacing of the playground and attention to the hall where meals are taken had been attended to when the report on Victoria Park was received.

Training.

This includes training in habits, senses and speech, music, movement, domestic tasks and table manners.

The kindergarten classes use equipment which includes montessori frames, coloured sticks, wooden beads, bricks of various kinds, wooden sewing frames, plasticine, sense-training games and puzzles.

The junior and senior classes are able to perform tasks such as knitting, sewing, embroidery, bead mat making, sea-grass stool weaving, plastic work, barbola modelling, soft toy making and gardening.

The percussion band is used in training all classes in time and rhythm.

Recreation.

Recreation consists of play and nature study. It includes outings to special places of interest. Christmas parties were held and enjoyed at all the Centres. Seventy children attended the "Evening Chronicle" Circus treat at Belle Vue on December 22nd and thanks are due to the proprietors for an annual event which is much enjoyed and also to all helpers at the Christmas parties.

Holidays.

A seaside holiday at the Bod Donwen Holiday Home, Rhyl, for selected children at the Centres is an annual event, and this year was held from the 17th to 24th August. Twenty-six children were accompanied by three members of the staff.

School Meals and Milk.

Each pupil receives daily two-thirds of a pint of milk free as in schools. At Victoria Park meals are cooked on the premises; at Wythenshawe and Ancoats meals are supplied in containers by the School Meals Service of the Education Committee. The charge for meals in Occupation Centres was increased from 5d. to 6d. with remission of the charge in cases of hardship in accordance with the same increase in charge per school meals by the Education Committee during the year.

Guides.

A few mothers with children attending the Centre are paid a small sum to act as Guides to larger parties of children whose mothers or relatives are unable to escort them. The staff of the Centres also undertake this duty. Parents pay bus travelling expenses except that in 14 cases of hardship the Committee defray the total cost.

Progress.

Reports from parents show appreciation of the improvement in children attending the Centres. Visitors report on all-round improvement in the morale of the homes. Review of each pupil's term progress report shows that the most difficult children are improved and that most settle down to useful learning by the special methods of the Centres.

HEALTH DEPARTMENT.

Incidence and Distribution of Mental Deficiency.

WARD	Estimated Population	STATUTORY SUPERVISION					VOLUNTARY SUPERVISION					GUARDIANSHIP					INSTITUTION					TOTAL CASES	Incidence per 1,000 population
		Male		Female		TOTAL	Male		Female		TOTAL	Male		Female		TOTAL	Male		Female		TOTAL		
		Under 16	Over 16	Under 16	Over 16		Under 16	Over 16	Under 16	Over 16		Under 16	Over 16	Under 16	Over 16		Under 16	Over 16	Under 16	Over 16			
Alexandra Park	22,167	1	2	1	1	5	—	1	—	1	2	—	—	—	—	—	2	2	—	5	9	16	0.73
All Saints	19,069	9	6	4	20	39	—	10	—	6	16	—	—	—	—	—	3	21	2	17	43	98	5.14
Ardwick	18,616	1	11	6	17	35	—	12	—	11	23	—	—	—	—	—	3	25	2	16	46	104	5.59
Barlow Moor	15,448	4	—	3	3	10	—	—	—	1	1	—	—	—	—	—	2	6	—	1	9	20	1.29
Beswick	14,273	6	17	2	17	42	—	9	—	3	12	—	—	—	—	—	2	14	2	12	30	84	5.89
Blackley	20,833	3	6	1	10	20	—	2	—	2	4	—	—	—	1	1	—	7	2	9	18	43	2.06
Bradford	23,868	8	14	7	20	49	—	6	—	3	9	—	1	—	—	1	4	12	4	18	38	97	4.06
Burnage	23,231	4	4	3	6	17	—	—	—	7	7	—	—	—	1	1	—	15	1	3	19	44	1.89
Cheetham	14,747	1	4	2	7	14	—	4	—	8	12	—	—	—	—	—	1	17	1	12	31	57	3.87
Chorlton-cum-Hardy	20,696	2	4	1	2	9	—	—	—	2	2	—	—	—	—	—	1	9	—	8	18	29	1.40
Collegiate Church	14,549	4	8	2	7	21	—	3	—	5	8	—	—	—	—	—	1	30	—	15	46	75	5.15
Crumpsall	22,369	6	10	5	13	34	—	7	—	4	11	—	—	—	—	—	—	7	2	17	26	71	3.17
Didsbury	17,037	1	1	1	2	5	—	1	—	—	1	—	—	—	—	—	—	6	—	4	10	16	0.94
Gorton North	23,729	4	13	4	18	39	—	11	—	5	16	—	—	—	—	—	3	17	1	20	41	96	4.05
Gorton South	18,161	2	8	3	15	28	—	1	—	6	7	—	—	—	—	—	3	8	2	6	19	54	2.97
Harpurhey	19,213	3	8	2	7	20	—	7	—	1	8	—	—	—	—	—	1	22	—	10	33	61	3.17
Levenshulme	20,240	1	4	3	4	12	—	2	—	1	3	—	—	—	—	—	2	13	—	12	27	42	2.08
Lightbourne	21,140	2	8	2	9	21	—	6	—	1	7	—	—	—	—	—	2	7	—	7	16	44	2.08
Longsight	16,253	2	7	6	5	20	—	—	—	3	3	—	—	—	1	1	2	10	—	4	16	40	2.46
Miles Platting	15,608	3	8	3	11	25	—	2	—	1	3	—	1	—	—	1	1	12	1	5	19	48	3.08
Moss Side East	19,555	2	13	4	14	33	—	2	—	8	10	—	—	—	—	—	5	22	1	14	42	85	4.14
Moss Side West	19,662	2	6	3	3	14	—	4	—	2	6	—	—	—	—	—	1	12	—	10	23	43	2.19
Moston	20,471	2	16	1	8	27	—	2	—	—	2	—	—	—	—	—	—	8	—	2	11	40	1.95
New Cross	14,815	5	13	9	7	34	—	2	—	3	5	—	—	—	—	—	4	19	—	15	38	77	5.20
Newton Heath	19,880	2	7	3	7	19	—	2	—	1	3	—	—	—	—	—	—	14	—	8	22	44	2.21
Newtown	20,672	3	23	4	19	49	—	7	—	7	14	—	—	—	—	—	4	31	1	27	63	126	6.10
Northenden	18,131	5	1	5	2	13	—	2	—	1	3	—	—	—	—	—	3	4	—	4	11	27	1.49
Old Moat	17,477	1	6	4	9	20	—	—	—	3	3	—	—	—	—	—	1	4	—	8	13	36	2.06
Openshaw	23,545	6	18	3	16	43	—	5	—	3	8	—	—	—	—	—	—	13	2	18	33	84	3.57
Rusholme	17,799	4	4	1	6	15	—	1	—	2	3	—	—	—	—	—	2	17	—	12	31	49	2.75
St. George's	20,366	5	17	5	9	36	—	1	—	5	6	—	—	—	—	—	3	37	2	21	63	105	5.16
St. Luke's	18,765	10	20	4	12	46	—	9	—	9	18	—	—	—	—	—	4	35	1	28	68	132	7.03
St. Mark's	22,016	—	6	4	17	27	—	6	—	4	10	—	—	—	—	—	2	26	2	17	47	84	3.82
St. Peter's	12,909	4	12	6	13	35	—	—	—	1	1	—	—	—	—	—	—	23	—	17	40	76	5.89
Withington	15,240	—	1	1	2	4	—	—	—	—	—	—	—	—	—	—	—	6	—	5	11	15	0.98
Wythenshawe	30,984	6	9	9	10	34	—	2	1	2	5	—	—	—	—	—	3	3	2	4	12	51	1.65
Unclassified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	—	39	69	69	—
		124	315	126	349	914	—	129	1	122	252	—	2	—	3	5	65	564	32	450	1,111	2,282	—

Incidence and Distribution of Mental Illness.

WARD	Estimated Population	CERTIFIED		VOLUNTARY		TEMPORARY		OBSERVATION		Total Cases	Incidence per 1,000 population
		Male	Female	Male	Female	Male	Female	Male	Female		
Alexandra Park	22,167	12	14	3	1	—	—	—	—	30	1.35
All Saints	19,069	61	51	2	1	—	—	—	—	115	6.03
Ardwick	18,616	50	43	2	3	—	—	1	—	99	5.32
Barlow Moor	15,448	8	15	2	1	—	—	—	1	27	1.75
Beswick	14,273	9	16	—	—	—	—	—	—	25	1.75
Blackley	20,833	16	41	1	1	—	—	—	—	59	2.83
Bradford	23,868	44	46	—	2	—	—	—	—	92	3.85
Burnage	23,231	7	18	1	2	—	—	—	—	28	1.21
Cheetham	14,747	53	62	—	4	—	—	—	—	119	8.07
Chorlton-cum-Hardy	20,696	15	24	1	1	—	—	—	—	41	1.98
Collegiate Church	14,549	38	42	1	2	—	—	—	—	83	5.70
Crumpsall	22,369	27	31	1	1	—	—	1	1	62	2.77
Didsbury	17,037	12	25	1	—	—	—	—	—	38	2.23
Gorton North	23,729	32	43	1	—	—	—	1	—	77	3.24
Gorton South	18,161	13	24	—	1	—	—	—	—	38	2.09
Harpurhey	19,213	28	31	—	—	—	—	—	—	59	3.07
Levenshulme	20,240	21	32	2	1	—	—	1	—	57	2.82
Lightbowne	21,140	21	18	—	1	—	—	—	—	40	1.89
Longsight	16,253	32	52	—	—	—	—	1	—	85	5.23
Miles Platting	15,608	24	39	1	2	—	—	—	—	66	4.23
Moss Side East	19,555	43	50	—	1	—	—	—	—	94	4.81
Moss Side West	19,662	21	35	—	1	—	—	—	—	57	2.90
Moston	20,471	20	24	—	2	—	—	—	—	46	2.25
New Cross	14,815	64	53	2	—	—	—	1	—	120	8.10
Newton Heath	19,880	26	33	1	—	—	—	—	—	60	3.02
Newtown	20,672	45	66	—	—	—	—	—	—	111	5.37
Northenden	18,131	9	12	—	1	—	—	—	—	25	1.38
Old Moat	17,477	13	24	3	1	—	—	—	—	41	2.35
Openshaw	23,545	42	28	—	2	—	—	—	—	72	3.06
Rusholme	17,799	15	43	1	—	—	—	—	1	60	3.37
St. George's	20,366	43	56	4	1	—	—	—	—	104	5.11
St. Luke's	18,765	49	55	2	2	—	—	—	—	108	5.76
St. Mark's	22,016	22	24	2	—	—	—	—	—	48	2.18
St. Peter's	12,909	30	14	1	—	1	—	—	—	46	3.56
Withington	15,240	13	26	—	4	—	—	—	—	43	2.82
Wythenshawe	30,984	16	21	1	2	—	—	1	—	41	1.32
Unclassified	—	48	24	—	—	—	—	—	—	72	—
		1,042	1,255	39	41	1	—	7	3	2,388	

FAMILY WELFARE CENTRES.

The first Family Welfare Centre was commenced as a voluntary effort in February, 1948, with the object of (a) dealing with adolescent problems and difficulties (b) strengthening the ideas of the responsibilities of the home by seeking to prevent a break-up of marriage and the alienation of children from the parents and (c) promoting the adjustment of unhappy childless marriages.

In May, 1948, the Health Committee obtained the approval of the City Council to co-operate in the establishment of Family Welfare Centres and the voluntary effort was transferred from the Ardwick Town Hall to the Maternity and Child Welfare Centre at Higher Ardwick, a second centre being opened at Northenden Maternity and Child Welfare Centre at the same time.

The Family Welfare Centres are under the supervision of a psychiatrist, Lady Gertrude Jefferson, who is assisted by Dr. Margaret Platt and Dr. Oldham, together with Mrs. Nancy Linyard, psychiatric social worker, and Mrs. V. T. Holmes as secretary-receptionist.

During 1950 the work of the Family Welfare Service has been consolidated and developed.

The number of applicants interviewed at the Higher Ardwick Centre during the year was 555, compared with 204 in the previous year, whilst at the Northenden Centre the number of applicants rose from 89 in 1949 to 142 in 1950.

The work is becoming progressively better known and has recently received favourable notice in the Manchester press.

The sources from which the applicants come are widening, though their problems continue to be much the same (including the maladjustment due to the housing shortage). The proportion of young married people, both men and women, who attend for advice on sex problems, is increasing, as is the contact with parents seeking advice on the management of their children.

The staff of the Centres has received grateful acknowledgment from Probation Officers for their help in seeing and advising some of the more difficult cases of marital separation. The staff has also been successful in bringing together the partners of a number of marriages which have been near to breaking-point, many of whom were referred to the Centres by the Marriage Guidance Council.

It is difficult to assess in figures the amount of good this service contributes to the community, but the increasing number of attendances appears to indicate the need for the work and its wide appeal.

The fundamental aim of the Family Welfare Centre is preventive and constructive and its development is materially dependent on the knowledge of the service being publicised in the right quarters so that young people entering upon life with difficulties can be assisted.

MUNICIPAL HOSTELS.

Walton House, Harrison Street, Ancoats.

Manager : H. R. Gomersall.

The Hostel was erected by the Corporation in 1899, under the provisions of the Housing of the Working Classes Act, 1890, and is a registered Common Lodging House for men, accommodating 454 persons.

The sleeping quarters are of the cubicle type, each cubicle being furnished with a bedstead, bedside chair, coat hangers and chamber. Substantial bedding is provided and it is changed regularly.

For a nightly charge of 1s. 9d. a resident is allowed the use of his sleeping cubicle from 7 p.m. to 8-30 a.m. Inclusive of the charge, he is given full use of the residential amenities of the Hostel ; smoke room ; reading room ; dining room ; kitchen ; toilets and wash bowls ; and laundry.

Smoke room :	Furnished with refectory tables, bentwood armchairs and " park bench " type seats. A wireless receiver is installed.
Reading room :	Daily newspapers are provided. The room is furnished with bentwood armchairs and tables to seat four persons. A section of the room is screened off, for use as a writing room.
Dining room :	Furnished with bentwood chairs and dining tables to seat four persons.
Kitchen :	Equipped with gas cookers and steam kettle. All domestic utensils necessary for cooking foodstuffs are provided.
Toilets :	Constant hot water is available and the towels are changed several times per day.
Residents' laundry :	Equipped with clothes boilers and a drying room.

A canteen and grocery shop, where the residents can purchase cheap meals and provisions, are situated on the premises and are well patronised.

At nominal charges the following additional services are provided :— bathing, early calling, laundry, lockers and parcel room.

The Hostel laundry also carries out work for other departments of the Corporation, the bulk of this additional laundering being the washing of the towels used in the Public Conveniences and soiled linen from Ashton House.

During 1950 the Hostel again proved to be a popular residence for the men who use this class of accommodation and it was full to capacity, a total of 1,326 requests for accommodation having to be refused.

The charges for the various services provided are as follows :—

Rent of cubicle	.. .. .	1s. 9d. per night or 12s. 0d. per week.
Bath	.. .. .	2d. (soap and towel provided).
Lockers ; small	.. .. .	6d. per six months.
large	.. .. .	1s. 0d. per six months.
Parcels	.. .. .	1d. per week.
Early calling	.. .. .	1d. per night or 4d. per week.

Ashton House, Corporation Street, Ancoats.

Manageress : Miss S. J. Bayley.

The Hostel was erected by the Corporation in 1910, and is registered as a Common Lodging House for women, accommodating 210 persons.

Similar facilities to those at Walton House are provided with the exception of the laundry service. The equipment provided for use by the residents has always proved sufficient to meet their needs and there has never been any demand for the use of the services of the laundry operated by the Corporation at the men's hostel.

The grocery shop is well patronised but few cooked meals are provided from the canteen except at week-ends, due mainly to the women's greater inclination to cook for themselves.

Although the accommodation is not used to its fullest capacity, a greater number of women used the Hostel during 1950 than in previous post-war years and a record daily average number of 191 residents were accommodated.

Year	1950	1949	1948	1947	1946	1945
Daily average number of residents accommodated	191	184	182	161	146	133

The charges for the various services provided are as follows :—

Rent of cubicle	1s. 6d. per night or 10s. 3d. per week
Bath	2d. (soap and towel provided).
Lockers ; small	3d. per six months.
large	6d. per six months.
Parcels	1d. per week.

SANITARY SECTION.

By J. Lawson, M.R.San.I., Chief Sanitary Inspector.

STAFF.

J. Lawson, M.R.SAN.I.	Chief Sanitary Inspector
A. Denman, M.R.SAN.I.	Deputy Chief Sanitary Inspector
J. Graham, M.R.SAN.I.	Assistant Chief Sanitary Inspector

General.

The activities of the Sanitary Section are based on statutory obligations relating largely to the environmental hygiene of dwellings, factories, shops, and workplaces; the purity and cleanliness of food and the prevention of atmospheric pollution. The increasing scope of these duties is a reflection of the enlightenment of public opinion in matters concerned with health and cleanliness; this interest is evidenced by new enactments and byelaws relating to smoke abatement and food hygiene.

A substantial amount of work was accomplished in these spheres during the year, despite changes in inspectorial personnel and staff depletion brought about mainly by the attraction of working conditions in more salubrious districts under a uniform national scale of salaries and the inability to recruit to full establishment as a consequence of the need to prune expenditure.

It continues to be necessary to concentrate a large proportion of the work of the inspectors on housing matters arising from complaints; of the 19,993 general complaints received, 17,926 were concerned with various forms of disrepair in dwelling-houses; several factors have contributed to this position, not the least being the heavy and increasing cost of repairs to houses, many of which can no longer be maintained properly at an economic cost. There is, moreover, ample evidence of a reluctance by owners to embark on extensive and much needed works of a preventive character; the solution of the problem is outside the scope of these observations.

The work carried out by the inspectors during the year included comprehensive surveys of school premises used for purposes of the schools' meals service and of the sanitary conveniences and washing arrangements in schools. Fuller information about the work of the section is given under the appropriate headings which follow.

I am pleased to record appreciation of the zealous work of the whole of the staff and the excellent team spirit which prevails. This is particularly evident in the practical advice and help readily given by the inspectors to new entrants to the service and has long been characteristic of the section.

Preparation, Sale, and Storage of Food.

The supervision of premises in which food is prepared, stored, or sold is regarded as an important branch of the inspectors' duties and continues to receive close attention.

There are indications that the publicity accorded in recent years to matters concerned with food hygiene is achieving good results. The general public are becoming increasingly critical of any instance of visual uncleanness of utensils or in service arrangements in cafes, restaurants, and shops and are less reluctant than formerly to complain to the management concerned or to the Health Department about such matters.

Some of the complaints reaching the Department relate to the presence of foreign matter in cooked or prepared foods ; one was concerned with the suspected presence of the foot of a rodent in a meat pie, but careful examination disclosed that the ingredient concerned was edible meat tissue from a bovine head.

In other cases small particles of blackened grease were found in loaves of machine made bread ; appropriate action was taken at the bakery where the bread was made to prevent a recurrence of this harmless but disagreeable form of contamination.

The inspectors have noted that executives of food premises of all types accept more readily than formerly, departmental recommendations designed to obviate risk of bacterial infection or contamination of food.

In some cases in which unsatisfactory conditions of a minor nature were found to exist at restaurants, cafes, and food shops the occupiers were cautioned and on subsequent inspection the conditions were found to be satisfactory.

It was necessary, however, to institute legal proceedings for more serious offences revealed at a bakehouse and 5 food shops, the occupiers being fined in each case.

Restaurants, Canteens, Snack Bars, etc.

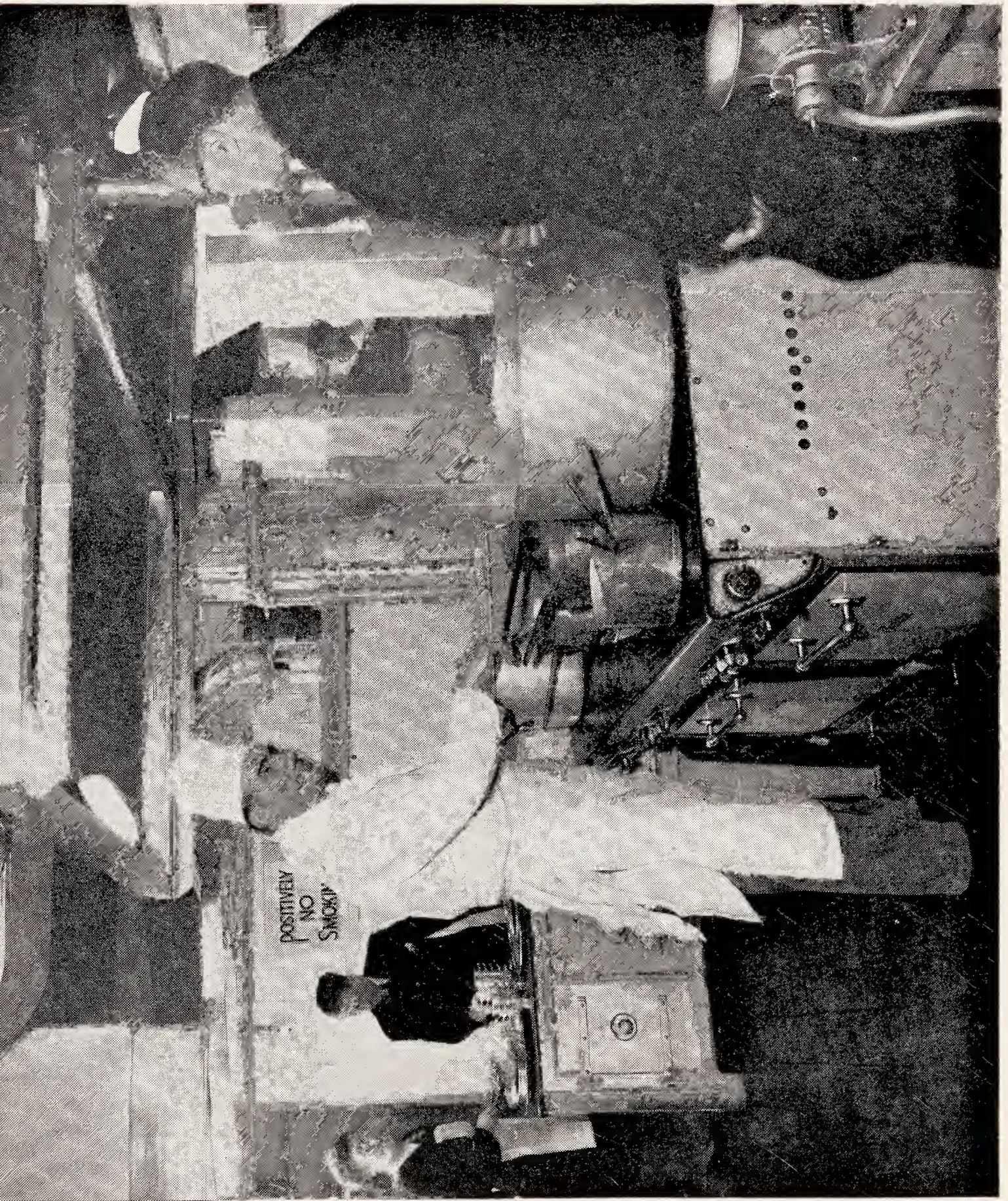
Particular attention was given by the inspectors to the conditions under which food is prepared or stored in these establishments and to the arrangements for cleansing utensils and equipment.

In many cases the facilities for washing up have been modernised by the installation of dual appliances for preliminary cleansing of crockery and utensils in hot water, followed by immersion in a tank, the temperature of the water therein being maintained at 180°F. for several minutes, after which the utensils are removed, to dry quickly without the use of wiping cloths. In many other kitchens the arrangements for hot water supply for washing up were improved by the provision of gas or electric water heaters. In some of the larger premises dish-washing machines have been installed.

There is a growing appreciation of the risks associated with the rapid growth of bacteria in certain prepared foods which are kept overnight, particularly during warm weather and in overheated rooms ; partly as a result of representations made in such cases, the provision of refrigerating appliances for cold storage of foods is increasing appreciably at food preparation premises in the city.

At many restaurants and cafes self-service arrangements have been introduced, apparently with a view to the reduction of overhead expenses. Whilst this system lessens the degree of food handling in service, prepared food dishes are in some cases exposed for varying periods to the risk of droplet infection or undue handling by customers.

Architects and managements often consult the Department regarding kitchen lay-out and equipment ; many of the recommendations made have operated in the City for several years and it is of interest to note that some of them are included in the recommended Target Code in the report of the Catering Trade Working Party issued early in 1951.



INSPECTION OF RESTAURANT KITCHEN.

A large number of applications were received from persons who had applied to the Ministry of Food for catering licences, the issue of which is conditional upon a satisfactory report by the Health Department upon the premises involved. About 50 of these cases related to catering at restaurants and cafes whilst a much larger number were concerned with the proposed preparation and sale of snacks and beverages at various types of premises. The premises were inspected in every case, and specifications of requirements were issued to the applicants; upon completion of the necessary works and the installation of equipment, communications were sent to the applicants enabling them to secure catering licences entitling them to obtain certain rationed foods for the purpose. This procedure constitutes in effect prior approval of these catering establishments and is of much constructive value as it ensures that the arrangements are such as to facilitate hygienic practice.

The City Architect forwards to the Health Department all plans relating to the construction of restaurant kitchens and other food preparation premises and recommendations are made by the Department concerning the lay-out and equipment of the premises.

Bakehouses.

There are more than 500 bakehouses registered in the Department and subject to routine inspection.

The reports of the inspectors indicated that a high standard of maintenance and cleanliness was observed generally although it was necessary to issue a number of cautions to occupiers for minor infractions of the Food and Drugs Act. In these cases prompt attention was given by the proprietors and the improvement was maintained.

In several instances suggestions by the inspectors resulted in better hygienic practice; such improvements included the provision and frequent laundering of overalls for persons engaged in food preparation and handling at a large bakery and the sewing up of breast pockets of overalls so as to prevent cigarette ends or other extraneous matter falling into food in course of preparation.

Legal proceedings were instituted against the occupier of a bakehouse where the conditions in the food store revealed evidence of serious neglect; fines totalling £8 were imposed in this case for infringements of section 13 of the Food and Drugs Act.

Licensed Premises—Hotels, etc.

The supervision of these premises is concerned with the conditions under which intoxicants are sold and in some cases with the preparation of food in catering. At 2 hotels where sub-standard conditions were found, cautionary action was taken and resulted in reconditioning and redecoration together with improved arrangements for washing glasses and cleansing the equipment. At other premises improvements were effected in the provision and maintenance of sanitary conveniences for the use of persons frequenting the premises.

Registerable Premises.

Premises in which the preparation or manufacture of sausages or potted, pressed, pickled, or preserved food is carried on are registerable under section 14 of the Food and Drugs Act. The number of such premises on the registers in the Department is 475 and in the course of the supervision exercised during the year it was necessary to issue cautions in 15 cases for failure to observe due cleanliness of the premises and in 6 cases regarding items of disrepair. The unsatisfactory conditions were rectified without recourse to legal proceedings. Reference is made in another section of the report to the supervision of ice cream premises, which are also subject to registration under section 14 of the Act.

Food Shops.

The inspection of retail food shops of all types disclosed an improved standard of cleanliness in the handling of food, cleansing of equipment and utensils and in wrapping arrangements.

The provision of adequate hot water supply, wash bowls, and sinks is proceeding steadily despite the prevailing high cost of installing these appliances. The proprietors of some of the smaller establishments state that they find it extremely difficult to meet the expense involved and have referred to the purchase tax on water heaters, etc., as a tax on cleanliness.

The proprietors of 114 food shops were cautioned for various unsatisfactory conditions of a minor nature; it was not found necessary to take further action in these cases. At 5 food shops where cautions proved unavailing, legal proceedings were instituted against the offenders and fines amounting to £17 10s. were imposed in respect of 18 summonses under section 13 of the Food and Drugs Act.

Sale of Food Outdoors from Vehicles, Receptacles, etc.

The supervision of this type of trading is exercised under the provisions of section 41 of the Manchester Corporation Act, 1946, which requires the registration of persons selling food from carts, barrows, etc., and of the premises in which food intended for sale from such vehicles, etc., is stored. In addition, section 66 of the Manchester Corporation Act, 1934, requires outdoor food vendors to inscribe, exhibit, or display their name and address on their vehicles; this provision facilitates the identification and supervision of itinerant vendors.

There are 425 persons registered to sell food outdoors in the City most of whom operate in the central areas. The registrations include greengrocers and fishmongers, principally in the outer districts and the proprietors of mobile canteens; 14 of the latter dispense snacks and beverages and 8 are fish and chip vendors.

Whilst the sale of food in the streets or on open sites inevitably gives rise to risk of food contamination, this has been minimised by the operation of the powers of control in force in the City.

The requirement of registration of premises used for the storage of food intended for sale outdoors has proved of value in removing many undesirable conditions which formerly existed, such as the storage of food by outdoor vendors in yards, cellars, and living rooms of dwelling-houses. There are 138 premises registered for food storage by outdoor vendors, many of whom share premises which have been approved by the Department and are subject to systematic inspection.

The sale of food on open sites is regulated by local byelaws which require, *inter alia*, that the sites must be paved and drained. In practice the byelaw requirements in these respects are carried out only on established "market" sites of a permanent character in the outer districts; the unauthorised use of "blitzed" and other open sites near the city centre by food vendors has given rise to many infringements of the byelaws.

Before proceedings were instituted in these cases the offenders were cautioned in writing but it became necessary to prosecute 14 persons for 160 offences under the byelaws, fines of £99 15s. being imposed. Proceedings were instituted against 4 persons for selling food outdoors without being registered; 9 persons were summoned for not inscribing their names and addresses on their food vehicles. Fines totalling £15 were inflicted in these cases.

Registered food vendors and persons engaged in the delivery of food have been granted free facilities to use the washing facilities at certain public conveniences in the city and 248 such authorisations have been issued by the Department. It is noted that the facilities are not utilized to the extent hoped for at the time the scheme was inaugurated by the Health Committee as a means of encouraging cleanly practice in the handling of food.

Following the issue of Model Byelaws relating to the handling, wrapping, and delivery of food, draft byelaws were submitted to the Ministry during the year. The draft byelaws incorporated the existing Manchester Byelaws concerning the sale of food on open sites ; these clauses, with slight amendments, have been preserved in the new byelaws, which were due to come into operation on the 1st April, 1951.

ADULTERATION OF FOOD.

Specialised officers maintain constant supervision of the nature, substance, and quality of food sold within the city by systematic sampling of representative articles in the average family dietary, together with articles of drink, medicines, and drugs.

The sampling formalities prescribed in the Food and Drugs Act are rigidly observed and include the equitable division of the article sampled into three parts, proper identification and sealing, enabling the vendor to obtain an independent analysis if he so desires.

The duties of Food and Drugs Authorities and the law relating to adulteration, etc., are contained in the Food and Drugs Acts, Pharmacy and Medicines Act, 1941, and numerous Regulations and Orders concerning standards, preservatives, labelling, etc.

These provisions are designed to protect purchasers and the relatively small number of serious infringements revealed, indicates general conformity with approved standards by manufacturers and vendors, despite the existing shortages of certain ingredients of food. It is noted, however, that these shortages have caused food manufacturers increasingly to invoke scientific aid in meeting consumers' needs and the maintenance of standards.

Compositional standards are legally defined for many food commodities; in other cases safeguards are contained in general requirements as to the nature, substance and quality of food sold. These requirements relate to the addition of other substances to food or drugs, the abstraction from any food of its constituents and the prohibition of the sale of any food not of the nature, substance and quality demanded by the purchaser.

So far as compounded foods are concerned the question of the extent to which a purchaser may be prejudiced, has become more involved in recent years by reason of the presence in these commodities of such ingredients as emulsifying, stabilising, or anti-staling agents, etc., about which the average purchaser has little knowledge.

A Sub-Committee of the Food Standards Committee of the Ministry of Food has under consideration matters concerned with the increasing use of chemicals in foods and the outcome will be of interest to consumers, manufacturers and local authorities alike.

Mineral Oil in Food.

In the samples taken during 1950 no contraventions of the Mineral Oils in Food Orders were revealed.

It may be recalled that in the three previous years legal proceedings were taken in Manchester in cases in which cakes were found on analysis to contain mineral oil, the cases taken in 1947—under the Food and Drugs Act—being the first of their kind in the country.

The Mineral Oil in Food (Amendment) Order, 1950, permits as a temporary measure, the presence of mineral oil in dried fruit, to the extent of one part by weight of mineral oil per 100 parts by weight of dried fruit. The amendment was stated to have become necessary because of the large stocks of dried fruit intended for distribution for the Christmas trade and which had been treated with mineral oil in the countries of origin. Consequential amendments in the order provide for upper limits of mineral oil content in foods in which dried fruit is an ingredient.

Vinegar and Solutions of Acetic Acid.

36 samples of these commodities were obtained but no infringements were found to have occurred. It may be of interest to mention an important High Court decision made during the year limiting the use of the term "vinegar"; this description was held to be a false trade description when applied to synthetic acid sold as condiment.

During the year 3,517 samples of food and drugs were submitted to the Public Analyst. This total included 1,255 milk samples of which number 198 samples did not comply with the presumptive legal standard specified in the Sale of Milk Regulations, 1939, namely, 3 per cent. fat and 8.5 per cent. solids not fat. In addition, 216 samples of milk were submitted by the Milk Control Inspectors; all these samples proved genuine. In connection with the 198 unsatisfactory milk samples mentioned above, legal proceedings were instituted against 8 farmers and dairymen; 34 summonses were issued, fines and costs amounting to £123 2s. 7d. being imposed. In the remaining cases cautionary letters were sent or further samples were taken where this action was considered to be appropriate to the circumstances. Among the samples of other foods submitted for analysis was a sample of butter adulterated with margarine. This sample was a private specimen brought to a sampling officer by a complainant and formal samples taken subsequently proved to be genuine. Another private sample reaching the Department was of gin delivered by a travelling salesman from another town but the purchaser declined to collaborate in further sampling.

Lemon curd imported from Eire was found on analysis to be below standard. In this case legal proceedings were taken successfully against the importer; the retailer was excluded from this action under the provisions of section 83 (3) Food and Drugs Act, 1938.

Legal proceedings were instituted concerning 2 samples of eucalyptus oil which proved to be not of B.P. standard. Both retailers concerned were prosecuted and fines were imposed; one of the retailers supplied the sample from bulk stock which had been in his possession for a long period, during which time a number of sales had been made from the bulk container by different employees. A "warranty" defence was pleaded unsuccessfully in this case. In the other case the retailer admitted that he had mixed eucalyptus oil obtained from two sources, one of which could not be identified.

Contraventions of the Labelling of Food Orders occurred in several cases, namely, "Off Ration Sweets," "Lemonade Powder Suckers," "Fish Dressing," and "Sago." In these instances the Ministry of Food were informed of the circumstances and took administrative action.

Cautionary action was taken respecting two samples of lentils found to contain a proportion of small stones; both samples were taken from bulk stocks. In one case the action was confined to the retailer as the stocks had been in his possession for a lengthy period. In the other case the wholesaler was also cautioned as the sample was obtained from a newly opened sack supplied recently to the retailer.

The tabular statement below gives particulars of the various foods and drugs found to have contravened the Acts and Orders, together with the action taken in these cases.

Adulterated and Other Unsatisfactory Samples and action taken.

Informal Samples							Formal Samples									
Adulterated or unsatisfactory	Cautioned	Formal samples obtained	Formal samples unobtainable	Referred to Ministry of Food	Action taken under the Unsound Food Clauses	Pending	Article	Adulterated or unsatisfactory	Cautioned	Legal Proceedings ordered	Referred to Ministry of Food	Adulteration deemed too slight for further action	Summonses	Fined	Amount of fines	Amount of costs
34	*	—	—	—	—	—	Milk.. . . .	164	†130	34	—	—	34	34	£ s. d. 101 0 0	£ s. d. 22 2 7
4	—	—	—	—	4	—	Milk Evaporated, Condensed, or Sweetened.. . . .	—	—	—	—	—	—	—	—	—
1	—	1	—	—	—	—	Butter	—	—	—	—	—	—	—	—	—
3	1	1	—	—	—	—	Coffee and Chicory Essences and Extracts.. . . .	1	—	—	—	1	—	—	—	—
1	—	—	—	1	—	—	Fish Dressing	—	—	—	—	—	—	—	—	—
1	—	1	—	—	—	—	Fruit Curd—Lemon	1	—	1	—	—	1	1	10 0 0	1 1 0
1	—	—	1	—	—	—	Gin	—	—	—	—	—	—	—	—	—
2	1	—	—	1	—	—	Lemonade Powder	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Lentils	2	2	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Sago.. . . .	1	1	—	1	—	—	—	—	—
1	—	—	1	—	—	—	Sausages	1	1	—	—	—	—	—	—	—
1	1	—	—	—	—	—	Cream of Magnesia	—	—	—	—	—	—	—	—	—
1	—	—	—	—	—	1	Medicated Sweets	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Oil of Eucalyptus.. . . .	2	—	2	—	—	2	2	5 0 0	—
3	—	3	—	—	—	—	Spirit of Sal Volatile	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Tincture of Iodine	2	2	—	—	—	—	—	—	—

* Followed by formal samples where necessary.

† Cautioned or samples repeated.

Public Health (Preservatives in Food) Regulations, 1925-1948.

A contravention of the regulations related to the declaration of preservatives on the label of a bottle of Coffee and Chicory not being in the prescribed form. The manufacturer concerned was cautioned.

These regulations are being reviewed by a Sub-Committee of the Food Standards Committee of the Ministry of Food.

Public Health Condensed Milk Regulations, 1923-1948.

Public Health Dried Milk Regulation, 1923-1948.

The regulations are concerned with the quality of these types of milk, the fat and non-fatty solids and certain labelling requirements.

33 samples of condensed and dried milks were submitted to the Public Analyst for examination but no contraventions occurred.

Butter and Margarine Factories and Wholesale Premises.

Visits were made to the 102 registered premises in the city and were concerned with structural arrangements and the division of the premises where butter and margarine are handled and stored. In addition inspections were made regarding the presence of adulterants of butter on the premises. No contraventions of the requirements were revealed.

Ice Cream.

The Public Analyst's reports on the 72 samples of ice cream taken during the year disclose that the fat content of the samples ranged from 2·7 per cent. to 20·7 per cent., only 8 of the samples having less than 5 per cent. fat content. These results compare favourably with those of samples taken in recent years.

Dwelling-house Disrepair.

A considerable proportion of the work of the district sanitary inspectors is concerned with the investigation of complaints received from tenants regarding nuisances arising from structural and sanitary defects in dwelling-houses.

The number of complaints relating to housing disrepair was approximately 18,000, many of them relating to defects of a serious nature, including badly leaking roofs and eavesgutters giving rise to varying degrees of discomfort to the occupants of the houses concerned. The subsequent statutory procedure to secure remedial action necessitated 62,213 primary and subsequent inspections in addition to a vast amount of administrative and clerical work in the preparation of informal and formal notices, correspondence, etc.

Many complaints emanate from residents in areas in which the property is old, dilapidated and beyond economic repair and the action taken in these cases—necessarily of a palliative nature—provides no satisfactory remedy; this lies only in progressive clearance action made possible by the provision of sufficient new housing accommodation.

The deterioration of houses, particularly those within potential clearance areas, has been accelerated by the infrequency with which repairs of a preventive character have been effected in recent years. This is especially applicable to roofs and gutters; repeated percolation of rain water has produced decay in the main structures, many of which became so dangerous as to necessitate demolition.

In the present housing situation, the action taken by the Department under the appropriate statutory powers, is designed to ensure that all occupied houses are kept so far as possible wind and weathertight, free from danger and serious nuisance. Many problems arise in the implementation of this policy, a major consideration being the extent to which labour and scarce materials should be used in the repair of old houses having a limited residual life.

Difficulties associated with the carrying out of repairs under default powers, with especial regard to recovery of cost of works entailed, have been the subject of consultation with the Town Clerk and of a special report.

It is noted that in general, the owners of houses in the outer districts responded satisfactorily to notices served upon them to execute repairs notwithstanding the increasing costs involved and the scarcity of roofing slates, timber and lead. In some cases improvised repair methods were employed to overcome the shortage of materials; defective lead lined box-gutters have been replaced by cast iron gutters and roofing tiles have been used in substitution for perished slating where stripping has been necessary. The abandonment of tenanted sub-standard houses continues together with the conveyance of houses to elusive "demolition contractors" who for obvious reasons are not prepared to effect repairs, being concerned only with the value of the materials in the structures. When a house in a terrace becomes vacant they speedily demolish it, leaving the adjoining occupied houses with their party walls—usually 4½ in. thick—exposed to penetrating wind and rain. Considerable difficulty is experienced in tracing these owners in order to compel them to make the houses so exposed reasonably wind and weathertight.

It was necessary during the year to serve notices under the provisions of section 285 (f) of the Public Health Act, 1936, in respect of 115 houses, the owners of which could not be traced; this number is an increase of 72 over the number of similar cases in 1949. In most of these cases repairs of an urgent character were carried out by the Department following the necessary court procedure, the cost of the repairs being recoverable from the property.

In 167 other cases legal proceedings were concerned with owners non-compliance with nuisance abatement notices and 103 nuisance orders were made by the Justices; in most cases no penalties were imposed but fines amounting to £455 were inflicted in a number of cases of long continued and serious neglect to abate nuisances arising from serious disrepair.

In addition to the previously mentioned repairs to houses where the owners have disappeared, the drainage, etc., works branch of the Department carried out drainage and other repairs in default or on the owners' request at 626 premises.

Other work carried out by the Department was that involved in the maintenance of public sewers situate on private property at 687 premises. This work was executed under the provisions of sections 23/24 of the Public Health Act and section 33 of the Manchester Corporation Act, 1946, the expenses incurred being recoverable from the owners of the premises concerned.

Examination of Drains.

In the investigation of complaints concerning choked or defective drains or as a result of routine inspections, it was found necessary in 186 cases to apply the provision of section 48 of the Public Health Act, 1936, whereby the Corporation may open the ground on premises to examine the condition of drains, etc. The Manchester Corporation Act, 1946, contains related provisions which enable the Medical Officer of Health or Sanitary Inspector to cause expeditious action to be taken in appropriate cases.

In every case in which the examinations were carried out, at least 24 hours' notice was given to the occupier of the premises concerned under the provisions of section 287 of the Public Health Act, 1936. The circumstances which give rise to these examinations vary considerably and include percolations of offensive liquid into basements and sub-floor cavities of buildings, subsidence of the surface of yards, gardens and passages above the probable course of drains and the presence of rat burrows; the latter conditions often denote the existence of fractured drain pipes or defective joints from which "sewer" rats have emerged in search of food or breeding places. In order to ascertain the condition of suspected drains, excavations are made at key points, where the drains are exposed often at a considerable depth, especially in the older parts of the City; these measures are supplemented in some cases by colour or smoke tests to determine the course of the conduits and to make sure which premises actually drain into them. The conditions found are recorded to form the basis of statutory action, usually under section 39 of the Public Health Act, 1936, but occasionally under sections 23/24 of the Act, relating to the maintenance of public sewers on private premises. In many cases in which notices requiring drainage repairs are issued under section 39 of the Act, the necessary remedial work is executed by the Department either in default or at the request of the persons upon whom the notices have been served. When the defective conduits are proved to be public sewers the requisite works of maintenance are also carried out by the Department under the provisions of sections 23/24 of the Act, the expenses thus incurred being charged to the owners of the premises concerned in accordance with the provisions of section 24.

Powers were obtained in the Manchester Corporation Act, 1950, to deal expeditiously with insanitary conditions arising from chokages in drains, private sewers, waterclosets and other sanitary appliances. Previously it had been necessary in these cases, in accordance with the provisions of the Public Health Act, 1936, to obtain the authority of the Council for the service of notices; in addition the time allowed in which to remedy the various chokages had to be at least of 21 days' duration in view of the right of appeal under the Act.

The new provisions, which are reproduced below—were applied during the year and are operating smoothly.

Section 41, Manchester Corporation Act, 1950.

1. If it appears to the medical officer or the sanitary inspector that on any premises in the city a drain private sewer watercloset soil pipe sink or other necessary appliance provided for the premises is stopped up he may by notice require the owner or occupier of the premises to remedy the defect within forty-eight hours from the service of the notice.

2. If the notice is not complied with or if the person on whom the notice is served requests the Corporation so to do the Corporation may themselves carry out the work necessary to remedy the defect and may subject to the next following subsection recover the expense of so doing from the person on whom the notice was served.

3. In any proceedings under this section the court may inquire—

- (a) whether any requirement contained in a notice served under this section or any work done by the Corporation was reasonable; and
- (b) whether the expenses incurred by the Corporation in doing the work or any part thereof ought to be borne wholly or partly by the person on whom the notice was served;

and the court may make such order concerning the expenses or their apportionment as appears to the court to be just in the circumstances of the case.

Provided that the court shall not order the expenses or any part thereof to be borne by any person other than the defendant in the proceedings unless the court is satisfied that that other person has had due notice of the proceedings and an opportunity of being heard.



ROOF REPAIRS IN DEFAULT.

Rent Restriction Acts, 1920-1939.

Applications were received from 15 tenants for certificates of disrepair in dwelling-houses under the relevant provisions of the Acts.

In 8 of these cases the houses concerned were found to be subject to new control under the 1939 Act and the tenants withdrew their applications upon being advised by the Town Clerk that the issue of certificates of disrepair in such cases would be of limited value to the applicants.

In 5 other cases inspections revealed that the houses concerned were not in a reasonable state of repair and the Health Committee authorised the issue of certificates to the tenants.

At 2 houses the items of disrepair which gave rise to the applications were remedied by the owners prior to the consideration of the applications by the Committee and the certificates were withheld.

In the 13 cases first mentioned, separate action was taken by the Department either by informal or statutory procedure under the Public Health Act to ensure that necessary repairs were effected.

In 3 cases in which certificates of disrepair had previously been issued to tenants, the owners of the houses applied under the provisions of the 1923 Act for reports confirming that the houses concerned had been placed in a reasonable state of repair ; these reports were issued to the owners as the requisite repairs had been carried out satisfactorily.

Common Lodging-houses.

Common lodging-houses are visited systematically by the district sanitary inspectors under statutory and byelaw provisions relating to overcrowding, ventilation, lighting, sanitary accommodation, water supply, washing facilities, and the prevention of the spread of infectious diseases.

The means of escape in case of fire are also subject to control ; supervision in this respect being exercised in conjunction with the City Architect's Department.

No person may keep a common lodging-house unless he is registered for that purpose, registration being conditional on the Corporation being satisfied as to the suitability of the keeper or his deputy and that the premises are suitable for use as a common lodging-house, the sanitation and water supply are satisfactory and that in other respects the premises are suitably equipped for use as a common lodging-house. In those cases in which a proper standard had not been maintained during the registration period, renewal of registration was granted for a lesser period than the customary 12 months to give the keepers concerned an opportunity to effect necessary improvements by the execution of works of repair, renewal of appliances or the eradication of vermin.

The 15 common lodging-houses in the City have sleeping accommodation for 2,117 men and 210 women, none of the premises being occupied by both sexes. Two of the premises are hostels owned by the Corporation and administered by the Health Committee, the number of beds being 454 for men and 210 for women.

In general the establishments maintained by the Corporation and by social organisations have a better standard of equipment and amenities than the remainder. Some lodging-house keepers have stated that it has become very difficult to run the houses on an economic basis and to maintain former standards of equipment, etc., by reason of the greatly increased cost of replacements and overhead charges. They instance the heavy increase in fuel costs—in one establishment from £240 in 1939 to £836 in 1950—and to the high cost of bedding and state that sheets which cost 7s 11d. per pair in 1939 are now 26s. 11d. whilst beds and blankets are correspondingly dearer.

It is apparent that keepers are experiencing difficulty in obtaining suitable labour for cleaning and maintaining the premises owing to the changed labour situation. It was customary prior to 1939 for elderly lodgers to carry out odd jobs and assist in cleaning, but they now appear satisfied to forego this means of augmenting their pension or other income.

Common lodging-houses are especially liable to become infested by vermin, particularly body-lice introduced by casual lodgers who may have been sleeping out in brick crofts or other unauthorised places and have become verminous. These persons sometimes escape the vigilance of the keeper, always on the look-out for evidence of vermin, and infestation is conveyed to regular residents with whom the casuals mix in the dayrooms. As a routine measure, the dormitories and other rooms used in common are sprayed with D.D.T. compounds to supplement the normal cleansing procedure. Furniture and beds are treated systematically with similar insecticides in powder form with very satisfactory results. Lodgers who have become verminous, continue to avail themselves of the facilities available to them at the Corporation Clinic at Monsall Hospital, where 237 persons resident at common lodging-houses were cleansed and their clothing disinfested during the year. In those lodging-houses which have steam disinfesting appliances, infested bedding and other articles are treated at the establishment; in other cases the infested articles are removed by the Corporation for disinfestation at the Monsall Station.

Houses-let-in-lodgings.

The housing shortage has caused many families to seek accommodation in houses-let-in-lodgings, 856 such houses being registered under the byelaws relating to those establishments. Registration is effected where there are 2 or more lodger families but is not applied in those cases in which married sons and daughters and their families live with their parents nor to houses in which sub-tenants are accommodated under the "Share your home" scheme sponsored by the Ministry. The latter houses are, however, subject to initial inspection and approval.

On the whole the premises registered are well conducted and despite the restricted nature of the accommodation and the communal use of certain facilities it is noted that generally the families concerned live harmoniously beneath the same roof. This is especially apparent in those cases in which the tenant resides on the premises and exerts a personal influence to ensure cleanly and orderly conditions.

In some cases, however, careless or negligent management gave rise to byelaw infringements and 51 cautionary intimations were issued during the year; in addition 10 notices were served for non-observance of byelaw provisions relating to cleanliness, water supply, cooking and washing facilities, artificial lighting arrangements and sanitary accommodation. The unsatisfactory conditions were remedied in these cases without recourse to legal proceedings.

In a few cases the requirement of facilities under the byelaws entailed a greater expense than the tenant or owner was prepared to incur and the use of the premises as lodging-houses was discontinued.

During the year there has been an increase in the joint use of houses by people of different nationalities, including Indians, Chinese, Negroes, and Egyptians together with local families. The different modes of living have given rise to unsatisfactory conditions in some of these houses and close supervision has been exercised to secure conformity with the byelaws and to ensure, as far as possible, that unpleasantness does not develop.

Reference was made in the report last year to the need for additional powers to regulate "farmed" houses-let-in-lodgings, particularly those in which there was no resident caretaker.

Powers were obtained for this purpose in the Manchester Corporation Act, 1950, and are reproduced below:—

Section 57, Manchester Corporation Act, 1950.

1. A person shall not except with the consent of the Corporation permit any house which is of a type suitable for occupation by persons of the working classes to be occupied by members of more than one family unless the occupier of the house resides in the house.

2. In giving their consent under this section the Corporation may impose such conditions as they think fit including a condition that a suitable person to be approved by the Corporation shall reside in the house and shall be responsible for the care management and control thereof.

3. Any consent under this section may be given for a limited period with power for the Corporation to renew such consent at the conclusion of that period.

4. Any person who contravenes the provisions of this section or fails to comply with the conditions subject to which the consent of the Corporation is given shall be liable to a penalty not exceeding ten pounds and to a daily penalty not exceeding five pounds.

5. For the purpose of this section the expression "occupier" means the person by whom or on whose behalf a house is let for occupation by members of more than one family or who for the time being receives or who is entitled to receive whether on his own account or as agent or trustee for any other person the profits arising from such letting.

Action was taken to implement these provisions and consent was given by the Health Committee to the continued use of a number of premises as "farmed" houses where a favourable report on the existing conditions had been received. In some of these cases it was found to be unnecessary to impose a condition requiring that a caretaker should live on the premises to be responsible for management and control.

Canal Boats.

The use of canal boats as dwellings is controlled under the provisions of the Public Health Act, 1936, and the regulations made under the Canal Boats Act. The number of boats now registered in the City is 192 ; 483 inspections of boats plying within the City were made during the year.

In general the living accommodation on the boats was found to be in a clean and satisfactory condition and it was necessary to serve only 4 notices respecting 7 infringements of a minor character.

Under the existing regulations, made in 1878, the prescribed minimum air space in cabins is 60 cubic feet per adult and 40 cubic feet for a child under 12 years of age. In some of the boats reaching the canals in the City the cabin contains approximately 200 cubic feet nett free air space and may lawfully be occupied by a man, wife, and 2 children under 12 years of age. The cabin constitutes a combined living room, bedroom, kitchen and bathroom, and the achievement of the satisfactory standard of cleanliness found during the year reflects credit on these hardy families whose mobile form of livelihood compels them to dwell in such cramped and primitive conditions.

It is observed that goods traffic on canals within the City appears to be diminishing and portions of the canals are falling into disuse.

No infectious diseases were notified during the year as having occurred on canal boats within the City.

Caravan Dwellings.

Nuisances arising from the use of land by dwellers in tents and caravans are of infrequent occurrence in the City, but action was taken in a case of this character which developed on a site within a mile of the City centre.

A large number of caravans and tents were set up on this site without the permission of the owners of the land, the persons concerned being mainly of the nomadic type. Complaints were received from residents of houses in the neighbourhood regarding conditions arising from the establishment of a colony of such campers. Owing to the absence of sanitary accommodation, drainage, and means for the storage of refuse the land became littered with domestic and other refuse and fouled by human excrement and sullage water. Informal action having proved unavailing, statutory action was taken against the occupiers under the appropriate provisions of the Public Health Act relating to the keeping of moveable dwellings on an unlicensed site for a period exceeding 42 days and in respect of conditions which gave rise to nuisances. Fines were imposed by the Justices in some cases : other cases were adjourned as the caravan dwellers undertook to vacate the land within a specified period. Subsequent action has been rendered difficult by the influx of fresh van dwellers and the frequency of changes in the occupation of the land, despite the erection by the owners of notices prohibiting " camping " on the site.

Water Supply.

Reservoirs at Thirlmere and Haweswater in the Lake District are the main sources of water supply to the City, these sources being supplemented by reservoirs situated in the Longdendale Valley in the Pennine Range about 20 miles eastwards of the City. Storage and service reservoirs are located within a few miles of the City boundaries. Samples of the towns supply to domestic and other premises are taken systematically in addition to those obtained in consequence of complaints received in the Department. Some of the samples were reported to have somewhat high coliform bacterial counts which were ascribed to sporadic aftergrowths in the mains, the coli generally being of the non-faecal type. In some cases the discoloration of supplies and the presence of stringy growths in domestic supplies was thought to have been caused by the resumption of regular flushing of the water mains following a period of water shortage earlier in the year, due in part to drought conditions.

Close co-operation is maintained between the Health Department and the Waterworks Department in matters concerned with the purity of the water supply to the City.

The following particulars have been furnished by the Engineer and Manager of the Waterworks Department.

The water supply has been satisfactory both in quality and quantity.

Regular supplies are taken for bacteriological examination of the raw water and of the treated water going into supply. Out of the 484 samples examined in 1950, 401 were found to be free from bacteria. Typical chemical analyses of the sources of supply are given herewith:—

TYPICAL ANALYSES. *January to December, 1950.*

THIRLMERE AND HAWESWATER LAKES.

The supply from these lakes is subject only to slight variations and the following are typical analyses.

	Thirlmere	Haweswater
pH value	6.4	7.1
Colour, p.p.m. platinum	11	13
Turbidity, p.p.m. silica	0.5	4.2
<i>Parts per million</i>		
Total solids dried at 180°C.	30.8	32.4
Free acidity as CO ₂	2.5	2.0
Alkalinity as CaCO ₃	9.6	13.0
Total hardness as CaCO ₃	16.3	18.8
Chlorides as Cl ₂	7.0	7.2
Nitrates as N ₂	0.17	0.14
Ammoniacal nitrogen, N ₂	0.015	0.010
Albuminoid nitrogen, N ₂	0.028	0.012
Oxygen absorbed test, 4 hours at 27°C.	0.78	0.70
Silica as SiO ₂	2.0	1.5
Iron as Fe	0.10	0.13
Manganese as Mn	0.06	trace

THIRLMERE SUPPLY. *As taken from house taps.*

TYPICAL ANALYSES. *January to December, 1950.*

	Date	June 6	September 12
	Lab. No.	2716	2749
pH value		7.3	7.1
Colour, p.p.m. platinum		15	13
Turbidity, p.p.m. silica		2.6	2.4
Odour: Cold or hot		nil	nil
Taste: Cold or hot		nil	nil
<i>Parts per million</i>			
Total solids dried at 180°C.		40.0	40.0
Free acidity as CO ₂		1.0	1.2
Total alkalinity as CaCO ₃		13.0	13.0
Total hardness as CaCO ₃		20.5	22.5
Chlorides as Cl ₂		7.2	7.0
Nitrates as N ₂		0.51	0.41
Nitrites as N ₂		trace	trace
Ammoniacal nitrogen, N ₂		0.013	0.018
Albuminoid nitrogen, N ₂		0.036	0.044
Oxygen absorbed test, 4 hours at 27°C.		0.73	0.94
Silica as SiO ₂		2.0	2.0
Iron as Fe		0.16	0.13
Manganese as Mn		0.03	nil

NOTE.—Traces of nitrites, when present, are derived from the chloramine treatment.

TYPICAL ANALYSES. *January to December, 1950.*

LONGDENDALE AQUEDUCT. RAW WATER.

This water is subject to wide fluctuations during the year and the following table gives an indication of these changes.

pH value	.. .. .	4.0	to	6.0
Colour, p.p.m. platinum	.. .. .	23	to	78
Turbidity, p.p.m. silica	.. .. .	5.5	to	20
<i>Parts per million</i>				
Total solids, dried at 180°C.	.. .. .	60	to	70
Free acidity as CO ₂	.. .. .	3.5	to	9.0
Alkalinity as CaCO ₃	.. .. .	nil	to	4.0
Total hardness as CaCO ₃	.. .. .	28	to	33
Chlorides as Cl ₂	.. .. .	8.5	to	11.0
Nitrates as N ₂	.. .. .	0.79	to	1.10
Ammoniacal nitrogen, N ₂	.. .. .	0.010	to	0.070
Albuminoid nitrogen, N ₂	.. .. .	0.048	to	0.092
Oxygen absorbed test, 4 hours at 27°C.	..	1.36	to	3.12
Silica as SiO ₂	.. .. .	7.5	to	10.0
Iron as Fe	.. .. .	0.18	to	0.56
Manganese as Mn	.. .. .	0.10	to	0.14

LONGDENDALE SUPPLY. *As leaving Godley Reservoir.*TYPICAL ANALYSES. *January to December, 1950.*

	Date	January 3	June 26	November 13
	Lab. No. ..	2572	2725	2795
pH value		7.0	8.45	7.2
Colour, p.p.m. platinum	.. ..	69	25	56
Turbidity, p.p.m. silica	.. ..	18.0	5.5	17.0
Odour: Cold		faint	nil	faint
Hot		slight chlorine	nil	slight chlorine
Taste: Cold or hot		nil	nil	nil
<i>Parts per million</i>				
Total solids dried at 180°C	..	82.8	66.0	78.0
Free acidity as CO ₂	.. .. .	2.0	nil	1.5
Free alkalinity as CaCO ₃	.. ..	nil	1.0	nil
Total alkalinity as CaCO ₃	.. ..	8.0	10.6	9.0
Total hardness as CaCO ₃	.. ..	38	36	31.5
Chlorides as Cl ₂	.. .. .	10.8	11.0	11.0
Nitrates as N ₂	.. .. .	0.99	0.84	0.81
Nitrites as N ₂		nil	nil	nil
Ammoniacal nitrogen, N ₂	.. ..	0.200	0.193	0.142
Albuminoid nitrogen, N ₂	.. ..	0.067	0.066	0.089
Oxygen absorbed test 4 hours at 27°C.		2.91	1.51	3.12
Silica as SiO ₂	.. .. .	8.5	8.5	9.0
Iron as Fe	.. .. .	0.40	0.20	0.43
Manganese as Mn	.. .. .	0.11	0.14	0.14
Residual chlorine	.. .. .	0.27	0.20	0.16

NOTE.—This water is sterilised by the chloramine process, which accounts for the bulk of the ammoniacal nitrogen present.

PLUMBO-SOLVENCY. *January to December, 1950.*

THIRLMERE SUPPLY.

The untreated water has a low plumbo-solvent action but it is neutralised with hydrated lime so as to raise the pH value of the water to 7.0 to 7.5. Plumbo-solvency tests have not been carried out on this supply.

LONGDENDALE SUPPLY.

The untreated water has a marked plumbo-solvent action. It is treated with hydrated lime to a pH value of 7.0 or over. Two tests on distribution were carried out in 1950 and the results were as follows :—

Date	Contact with lead service (hours)	pH value	Lead content as Pb. Part per million
February 1st.. .. .	8½	7.2	0.20
March 24th	8½	9.15	Less than 0.04

BACTERIOLOGICAL REPORT. *January to December, 1950.**Lakes, Aqueducts, and Service Reservoirs.*

	Total number of samples	Samples free from Coliform bacteria	Faecal Coli present		Non-faecal Coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
Haweswater Lake ..	0	0	0	0	0	0
Haweswater Aqueduct	0	0	0	0	0	0
Thirlmere Lake	0	0	0	0	0	0
Thirlmere Aqueduct ..	6	5	1	5	0	0
Longdendale Aqueduct	48	1	43	1-160	40	1-50
<i>Service Reservoirs</i>						
Audenshaw No. 1 ..	13	1	12	3-350	10	1-50
„ No. 2 ..	13	0	12	1-350	9	1-35
„ No. 3 ..	13	0	11	1-600	10	1-50
Denton No. 1	13	7	2	1-2	5	1-2
„ No. 2	13	7	4	1-2	3	1-3
Godley Inlet	50	34	12	1-7	12	1-8
(Chlorinated)						
Godley Outlet	51	43	7	1-7	3	1-2
Heaton Park	13	2	11	2-350	9	1-35
Prestwich No. 1 ..	49	37	9	1-25	7	1-3

Waters from Haweswater and Thirlmere lakes are chlorinated in the aqueducts near the headworks. The water is rechlorinated before it enters the Manchester area of supply. The Thirlmere Aqueduct results given above represent the water **prior** to this second chlorination.

Longdendale aqueduct water is chlorinated before it enters the Godley Reservoir and sufficient chlorine (as chloramine) is added to maintain a residual in the water leaving the reservoir.

BACTERIOLOGICAL REPORT. *January to December, 1950.*
Chlorinated Water Supplies.

	Total number of samples	Samples free from Coliform bacteria	Faecal Coli present		Non faecal Coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
Audenshaw	119	91	9	1-350 <i>a</i>	22	1-35
Denton	64	57	2	1	6	1-25 <i>b</i>
Godley	63	60	1	1	2	1
Heaton Park	85	58	15	1-50 <i>c</i>	19	1-90 <i>d</i>
Prestwich	56	46	5	1-2	5	1-2
Thirlmere Aqueduct ..	97	89	6	1-50 <i>e</i>	6	1
Total	484	401	38	—	60	—

NOTES :—

- (a) 2 samples contained 25 and 350 coli per 100 mls. due to faulty chlorination on account of ice formation at plant. The remaining 7 samples contained 1 to 2 coli per 100 mls.
- (b) 1 sample contained 26 total coli per 100 mls. due to fault on chlorine plant. Remainder had 1 to 3 coli per 100 mls.
- (c) 2 samples contained 25 to 50 coli per 100 mls. due to electricity power cut putting chlorine plant out of action. Remainder had 1 to 5 coli per 100 mls.
- (d) The same 2 samples contained 50 and 90 coli per 100 mls. for the same reason. Remainder had 1 to 2 coli per 100 mls.
- (e) 1 sample had 50 coli per 100 mls., remainder 1 per 100 mls.

The Thirlmere and Longdendale supplies are treated with hydrated lime. This has proved effective in limiting the maximum lead content found in samples given overnight contact with lead service pipes to about 0.2 parts per million.

It has proved impracticable to prevent access of seagulls to the larger service reservoirs. Pollution from this source is dealt with by chlorination at the outlets of the reservoirs.

Infectious Diseases.

Under the provisions of the Public Health Act relating to the prevention of the spread of infection, the district inspectors made 2,198 investigations of the circumstances connected with notified infectious diseases.

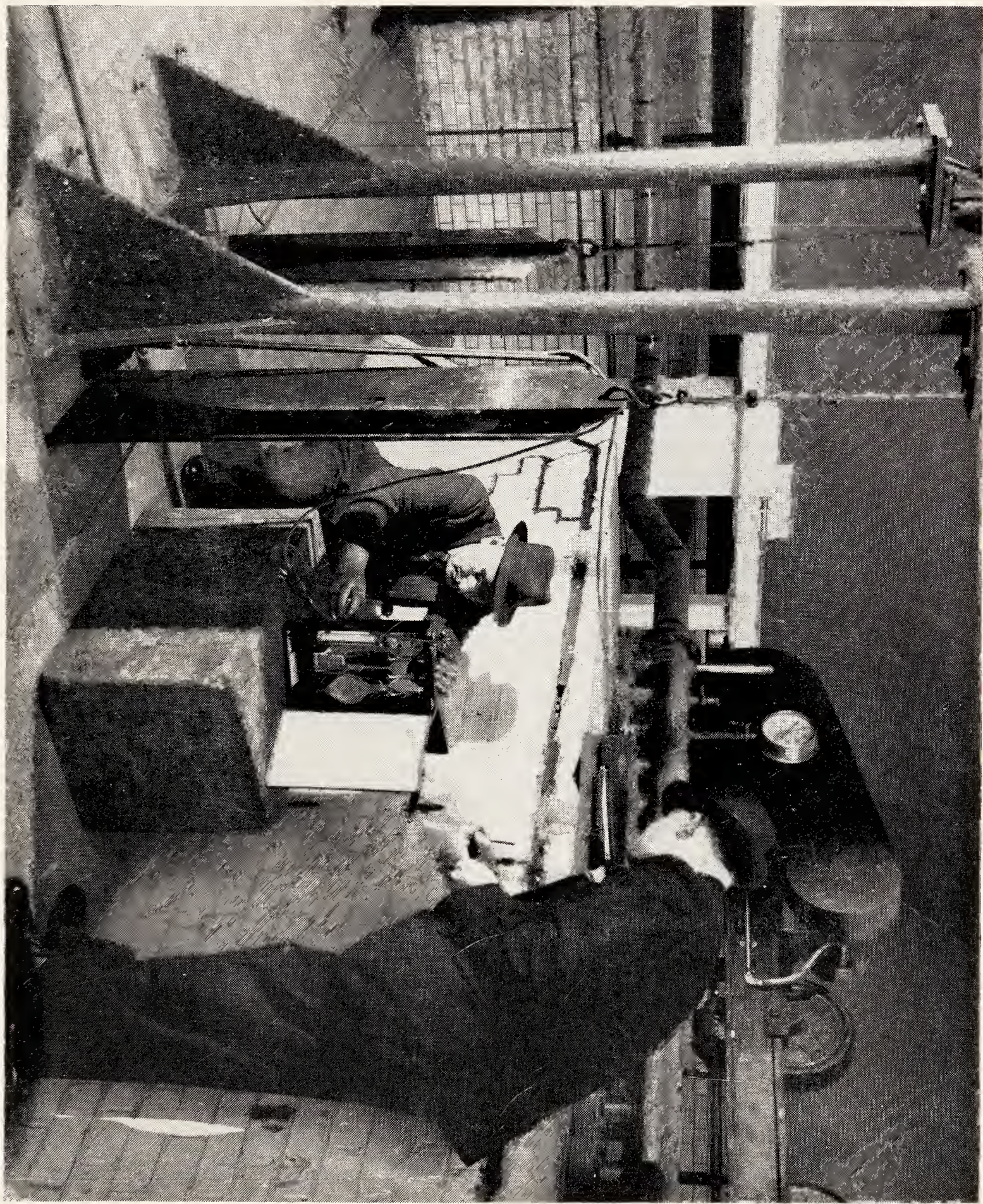
The enquiries were directed to the ascertainment of possible sources of infection, maintenance of isolation of persons nursed at home, and the control of infected articles. In addition, 238 visits were made in tracing contacts with infected persons, including 92 enquiries regarding smallpox contacts who had reached the City after contact with notified cases elsewhere.

Legal proceedings were instituted against 3 persons who while engaged in collecting rags and old clothes, exchanged balloons for rags handed to them by children under the age of 14 years. Fines of £1 were imposed by the Magistrates in each case for contraventions of the provisions of Section 154 of the Public Health Act, 1936.

Smoke Abatement.

The duties of the smoke inspectors are carried out primarily under the nuisance provisions in the Public Health Act which require local authorities to survey their districts and deal with statutory nuisances, including smoke nuisances.

It is recognised, however, that punitive action alone cannot achieve the eradication of industrial smoke pollution, which may arise from various circumstances such as insufficient knowledge of the causes of smoke production, careless control or inadequate maintenance of boiler house equipment.



SMOKE ABATEMENT—TESTING BOILER FLUE GASES.

For economic reasons bituminous coal is almost invariably used in steam raising installations and it has become essential in the national interest that it should be burnt efficiently.

There is, however, only a narrow margin between efficient combustion and the point at which black smoke emission may occur by reason of insufficient admission of air, giving rise to appreciable heat loss by unburnt gases.

Other factors which militate against the achievement of the efficient use of fuel and the avoidance of nuisance include the variable quality of coal supplies and undue frequency of changes in boiler house personnel.

In the past it was a common occurrence for boiler firemen to secure a relatively clear chimney top by the simple but fuel-wasting expedient of opening the furnace doors to admit excessive amounts of secondary air over the fuel bed.

It has been demonstrated that the fuel loss resulting from such unscientific practice may amount to as much as 160 tons of coal, costing about £640, out of 1,000 tons used in a single boiler furnace in a year.

In the course of their routine duties the smoke inspectors draw the attention of operatives and management to methods whereby economic combustion may be attained ; also to conditions which are likely to give rise to nuisance.

In one case it was pointed out at a large industrial undertaking that serious grit nuisance was imminent by reason of the increasing load on a plant where the type of fuel in use necessitated forced draught arrangements. As a result of informal discussion with the management, grit arresting appliances have been installed with very satisfactory results. It may be mentioned here that " smoke " as defined in the Public Health Act, includes soot, ash, grit, and gritty particles.

The smoke inspectors made 1,169 visits of an advisory nature during the year ; industrialists continue to co-operate actively in combating smoke nuisance and in several cases have installed mechanical stoking devices, mechanical draught, and other adjuncts to smokeless operation of boiler furnaces on the advice of the inspectors. It was found, however, that in a few cases appliances claimed to be " smoke preventers " had been installed voluntarily but had not proved to be satisfactory in use.

In the exercise of their statutory functions the inspectors made 416 timed observations of industrial chimneys ; reports were submitted to the Health Committee regarding 32 cases in which excessive smoke emission was reported to have occurred. After consideration of the circumstances, including the previous records of the firms concerned, 19 cases were dealt with by cautions, supplemented by technical advice designed to obviate a recurrence of offence.

In 10 cases nuisance abatement notices were served, 6 of these relating to black smoke and 4 to the emission of smoke other than black, emitted in such quantity as to be a nuisance. Legal proceedings were instituted in 3 cases, in one of which a nuisance abatement order was made by the Justices, whilst fines amounting to £2 7s. were imposed in the other 2 cases.

Negligent and unskilled firing methods continue to be the principal causes of smoke nuisance in the City : with a view to an improvement in this regard boiler firemen have been urged to attend the special courses of instruction in boiler house practice arranged for them at the Manchester College of Technology.

Particulars of smoke observations and subsequent action are given in the following tabular statement :—

Timed observations taken	416
Black smoke, two minutes and over in half-hour periods	28
Smoke other than black and causing nuisance	4
Black smoke under two minutes	204
Total amount of black smoke observed in minutes	436
Average amount of black smoke observed (in minutes) per observation revealing smoke	1.84
Complaints received from all sources	69
Visits to works re smoke abatement	1,169
Premises where inspectors recommended plant to be altered, improved, or repaired	110
Premises where plant was found to have been altered, etc., as a result of inspectors recommendation	100
Cases reported to Committee	32
Cases cautioned or excused	19
Statutory notices served—black smoke	6
Statutory notices served—smoke other than black	4
Magistrates' order to abate nuisance obtained	1
Prosecutions for smoke nuisances and penalties imposed	2
Total amount of penalties and costs	£2 7s.
Statutory notices expiring without further action	19
Approximate number of industrial chimneys	1,405

Cases reported to Committee—Causes of Emissions :

Bad firing	17
Unsuitable fuel	5
Bad firing and unsuitable fuel	2
Fireman having other duties to perform	1
Structural defects in plant	5
Accidental causes beyond control of firemen	2

Manchester Corporation Act, 1946

(Prohibition of Smoke in Certain Areas).

Under Section 35 of the local Act of 1946, powers were obtained to prohibit the emission of smoke from any premises in a defined central area of the City as from a date to be resolved by the Council and subject to due advertisement of such date and of the effect of the provisions of the section.

When the powers were sought in 1946 it was anticipated that a return to normal conditions as to supplies of smokeless solid fuels, gas and electricity would make it possible to implement the provisions within a much shorter period than proved to be the case. The position was kept under review and following a further survey of the buildings in the central area in 1949 and after the necessary consultation with the Minister of Health, the City Council resolved that the date of operation of the section shall be the 1st May, 1952.

The date of commencement and the effect of the provisions have been advertised and this has given the occupiers of premises in the area affected more than 12 months in which to make such arrangements as may be necessary for them to meet the requirements of the section.

Many enquiries have already been received in the Department concerning the means whereby smokeless operation of appliances for space heating, cooking, and steam raising, etc., may be achieved and it is evident that occupiers in the area are prepared to co-operate in making a success of this measure of smoke abatement.

The central area is approximately 104 acres in extent and consists mainly of office premises, administrative and commercial buildings, shops and departmental stores. Whilst it is realised that the prohibition of smoke emission in this relatively small area cannot have an appreciable effect on the degree of atmospheric pollution in the City generally, it is hoped that the successful operation of the powers in the central area will demonstrate the practicability of a large built up area becoming entirely smokeless by progressive extensions of the smokeless area.

The Manchester Corporation Act, 1946, confers powers to extend and apply the provisions applicable to the central area to other areas in the City subject to the procedure specified in the Act.

Manchester Corporation Acts, 1946 and 1950 (Prevention of Smoke from Newly Installed Furnaces).

The provisions of Section 36 of the Manchester Corporation Act, 1946, which have operated since July, 1946, applied generally to industrial furnaces, but certain furnaces including those used for central heating by hot water, were outside the scope of the section.

Section 42 of the Manchester Corporation Act, 1950, extends the provisions of Section 36 of the 1946 Act and is reproduced below :—

1. Section 36 (Prevention of Smoke from Industrial Furnaces) of the Manchester Corporation Act, 1946, shall have effect by the substitution for sub-sections (1) and (2) thereof of the following sub-sections :—

- “(1) No person shall instal in any building whether erected before or after the passing of this Act or on any premises any furnace unless such furnace is so far as practicable capable of being operated continuously without emitting smoke ;
- (2) Any person who contravenes the provisions of this section shall be liable to a penalty not exceeding ten pounds and any person who after there has been a conviction of an offence of installing a furnace in contravention of those provisions uses that furnace shall unless it has been altered so as to comply with those provisions be liable to a penalty not exceeding two pounds for each day on which he so uses the furnace :

Provided that a person so using such furnace shall not be liable to the last-mentioned penalty unless he himself was convicted of the said offence or if he was not so convicted unless prior to such use or the continuance of the use he had received notice from the Corporation that there had been a conviction in respect of the installation of such furnace.”

2. Nothing in this section or in the said section 36 shall apply to the installation of a furnace in—

- (a) a house or flat unless the furnace is intended to be used for the heating of more than one house or flat ; or
- (b) a building previously used as a single house which has been converted into two or more separate houses or flats.

3. For the purposes of this section the expression “ house ” shall include a house of which part is licensed by the Justices for the sale of intoxicating liquor pursuant to the Licensing Acts, 1910 to 1949, notwithstanding that the premises are so licensed provided that the house is not designed and is not being adapted to provide more than three bedrooms for visitors or guests.

4. Before the Corporation serve a notice under sub-section (3) of the said section 36 as amended by this section stating that they are not satisfied that a furnace is so far as practicable capable of being operated continuously without emitting smoke the Corporation shall consult with the Minister of Fuel and Power

It will be seen that with the exceptions specified in Sub-Section 2, newly installed furnaces must be, so far as practicable, capable of being operated continuously without emitting smoke.

These provisions constitute an important constructive measure designed to ensure that when the replacement of obsolete furnaces becomes necessary or additional boiler plant is provided, modern smoke preventing devices are incorporated in the new installations.

Prior approval of these installations by the Corporation is not compulsory, but during the year 9 industrialists sought and obtained notices of approval of new furnaces under the specified procedure. In many other cases, particulars of projected installations were discussed informally with the Department and the recommendations made were incorporated to ensure smokeless operation of the furnaces involved.

The City Architect forwards to the Health Department all plans which indicate that furnaces are likely to be installed in new or altered buildings.

The architect or industrialist concerned is notified of the provisions of the relevant sections and is advised regarding the particular measures which should be taken to meet the requirements of the Acts.

New installations consist mainly of " Lancashire " boilers with mechanical stokers and burning bituminous coal, or smaller furnaces burning smokeless fuel. Improvements in boiler house working conditions are denoted by the introduction of coal and ash conveyors in several installations.

An innovation in the Manchester area is the adaptation of the chain grate principle to the " Lancashire " boiler. The advantages claimed are that a wide range of fuels can be utilised, the rated output from the boiler can be maintained with lower grade fuels and a high overall efficiency achieved by reason of the elimination of the need for cleaning and levelling fires, with complete absence of smoke.

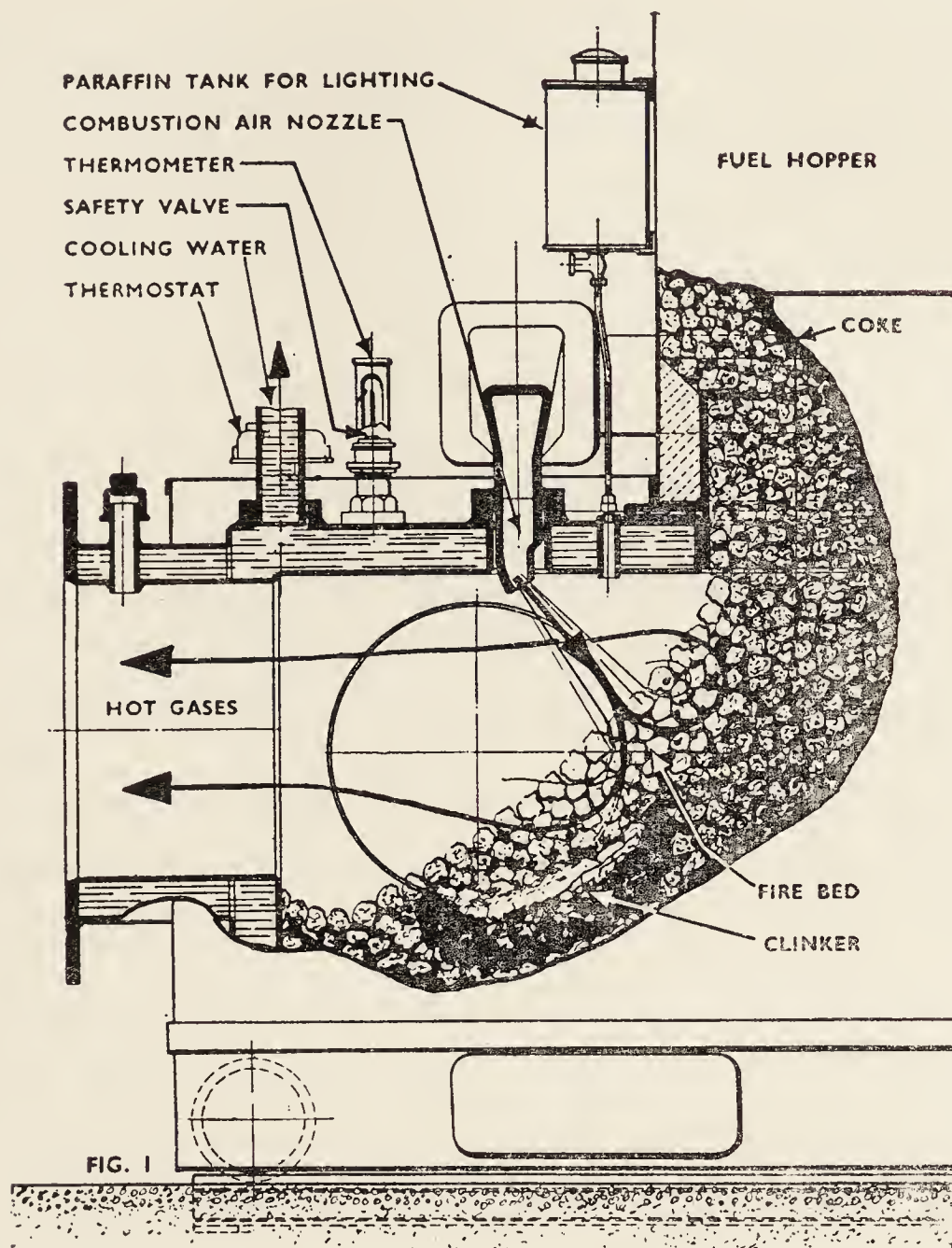
The first commercial application in the country of the down-jet system of combustion to central heating, occurred in the City area. Down-jet combustion has been the subject of extensive research for many years by the British Coal Utilisation Research Association, and the patents have only recently been handed over for commercial development. The principles of construction permit coke to fall by gravity from a sealed storage hopper and form a bed, inclined at the natural angle of repose, within the combustion chamber. A jet of air under pressure passes through a nozzle and impinges on the fuel bed, penetrating it to a depth of several inches. The top layer of the bed acts as an air pre-heater, and little reaction takes place there, the main combustion zone being two or three inches below the surface of the fuel. Most of the reaction takes place in the spaces between the fuel particles, and as no secondary air is required the combustion chamber volume is very small and there is very little excess air. The rate of combustion depends on the quantity of air supplied through the nozzle, and the composition of the products of combustion is controlled by air velocity.

Combustion can be started by a paraffin burner or by red-hot fuel. Molten ash falls through the fuel bed and coalesces at the base, where it can be removed in one piece as " clinker." A thermostat controls the combustion air fan. The combustion chamber is on wheels and can be fitted in front of an existing boiler and run clear for inspection.

Water circulation is provided in the combustion chamber for cooling purposes, the heated water passing into the hot water system of the boiler.

The special features are, absence of wearing parts, high thermal efficiency, cleanliness in operation, ashes easily removable, and smokeless combustion.

A section through the furnace is illustrated below :—



Atmospheric Pollution.

Investigations are carried out by the Department to obtain precise information about the nature and extent of atmospheric pollution in the City.

The particulars obtained are forwarded to the Department of Scientific and Industrial Research in order that changes which take place in the extent of pollution of the atmosphere in various parts of the country may be collated and their significance assessed.

The instruments by which atmospheric pollution is measured in Manchester are :—

- (1) The deposit gauge.
- (2) The lead-peroxide instrument.
- (3) A combined smoke filter and volumetric sulphur dioxide apparatus.

The deposit gauge resembles a normal rainwater gauge and is a useful general purpose instrument for measuring pollution, although it does not receive the different impurities in the same proportion as they are emitted into the air. It is most effective in sampling ash and other relatively heavy particles which fall rapidly near to the source of their production.

The purpose of the lead-peroxide instrument is to give an index of the activity of sulphur dioxide in the atmosphere, lead-peroxide being employed because it readily combines with sulphur dioxide,

Reference is made later to the purposes of the combined smoke filter and volumetric sulphur dioxide apparatus.

In Manchester there are 7 deposit gauges, 3 lead-peroxide instruments, and 1 combined smoke filter and volumetric sulphur dioxide apparatus. These appliances are supervised by the City Analyst, who reports monthly on the degree of pollution measured. For comparative purposes, there is another deposit gauge at Handforth, 9 miles south of the City centre.

A summary of the deposit gauge and lead-peroxide observations at stations controlled by the Department appears in the tables below :—

Deposited Atmospheric Pollution (Tons per square mile).

MONTHLY AVERAGES.

Station	Rainfall (inches)		Insoluble Matter		Soluble Matter		Total Solids	
	1950	1949	1950	1949	1950	1949	1950	1949
Baguley	2.8	2.4	5.96	4.07	5.53	5.36	11.49	9.43
Booth Hall	3.4	2.7	7.95	7.78	6.29	5.80	14.24	13.58
Heaton Park ..	3.2	2.9	10.76	9.22	6.05	6.16	16.81	15.38
Monsall	3.2	2.4	13.22	12.61	8.37	7.88	21.59	20.49
Philips Park	3.4	2.5	38.76	41.34	11.78	12.29	50.54	53.63
Rusholme	3.2	2.4	12.21	11.42	6.72	6.66	18.93	18.08
Withington	2.8	2.5	9.61	8.16	5.43	5.38	15.04	13.54
All Gauges	3.1	2.6	14.06	13.51	7.17	7.08	21.23	20.59

Station at Knowle House, Handforth.

	Rainfall (inches)		Insoluble Matter		Soluble Matter		Total solids	
	1950	1949	1950	1949	1950	1949	1950	1949
Knowle House ..	2.9	2.4	3.74	3.27	4.39	4.69	8.13	7.96

Sulphur Pollution.

(Measurements by Lead Peroxide Method.)

Weight in milligrammes SO_3 per 100 square centimetres exposed surface per day.

Monsall		Rusholme		Withington	
1950	1949	1950	1949	1950	1949
5.22	5.02	3.46	2.89	2.04	1.68

The results show, that with the exception of the Philips Park Station, there was a slight increase in total solids at all stations, including Knowle House, Handforth over the results in 1949; this is probably due to the increased rainfall during 1950 having carried more deposited matter into the gauges.

The reduction shown at Philips Park may be due to the completion of demolition work and structural alterations at industrial premises in the area mentioned in the report of the previous year.

The combined smoke filter and volumetric sulphur dioxide apparatus is installed at Rusholme, a non-industrial locality and assists in the measurement of smoke production; the smoke-sulphur ratio, with certain limitations, measures the degree of smokiness with which coal is being burned. The Department of Scientific and Industrial Research has pointed out that pollution also depends on a number of meteorological factors, which vary periodically and irregularly.

The pollution measured at Rusholme diminished during the summer months as would be expected in a district in which domestic fuel burning appliances predominate.

The graphs which follow show that the mean daily smoke concentration lessened in April and fell sharply in May and June, after which a gradual rise occurred with sharp increases in the autumn to the highest point in December.

In the early part of the year, the highest readings occurred on January 19th—a frosty and misty day, when 1,764 milligrams of suspended matter per cubic metre, and 0.631 parts per million of sulphur dioxide were measured.

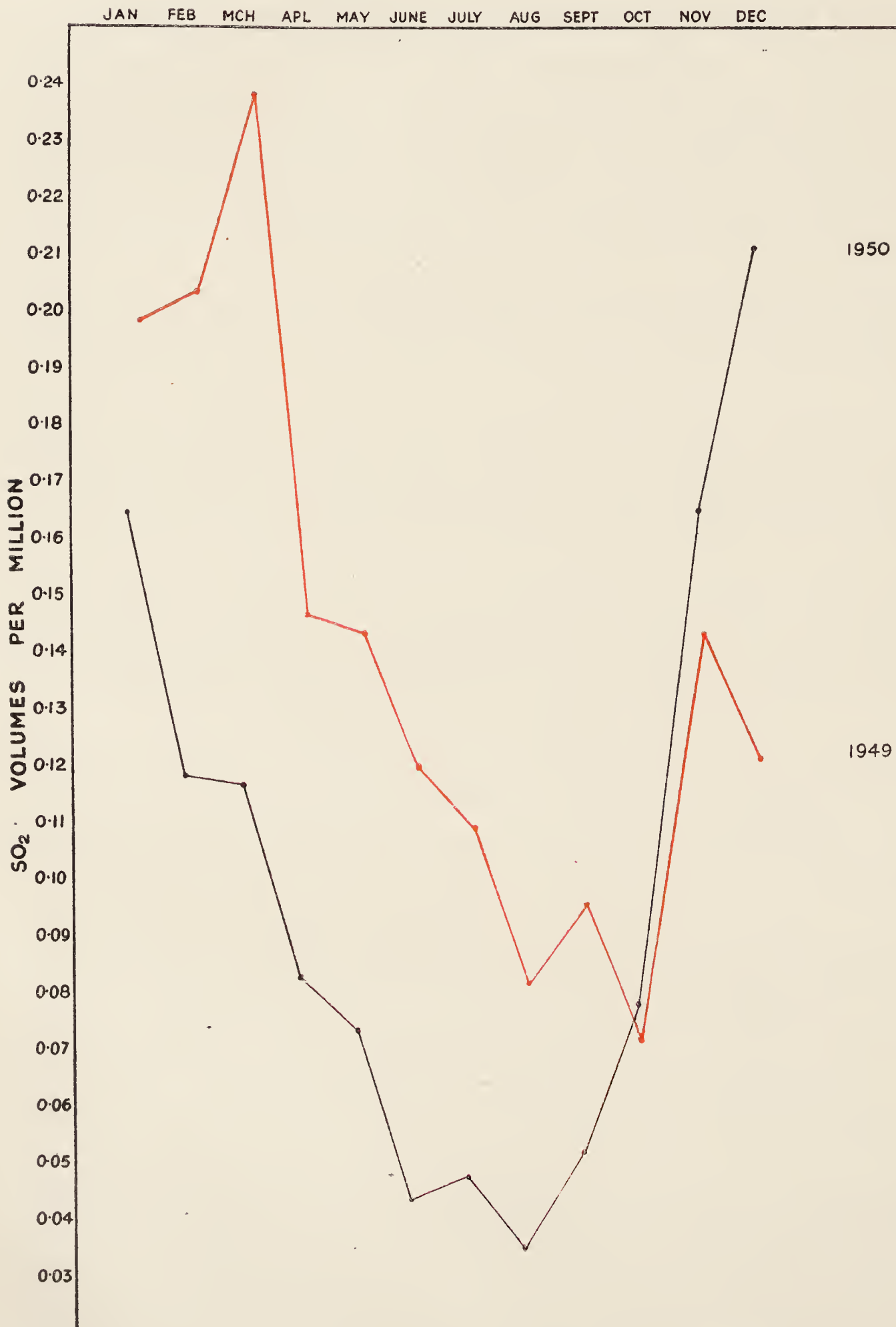
In November the weather was generally cloudy and dull; thick fog prevailed on the 27th, resulting in the highest recorded pollution of the year—2,205 milligrams of suspended matter per cubic metre and 0.632 volumes of sulphur dioxide per million.

During December there were frequent snowfalls, frost and sleet occurring on some days. In addition there were two days on which slight fog occurred. These conditions probably contributed to the highest daily average pollution of the year—0.567 milligrams of suspended matter per cubic metre and 0.211 volumes of sulphur dioxide per million.

For comparative purposes, the 1949 results are also shown. In addition, suspended impurity at Greenwich Observatory for the year 1943 is included. The latter information has been extracted from the twenty-sixth Report on the Investigation of Atmospheric Pollution, and is the most recent report published by the Department of Scientific and Industrial Research on these observations,

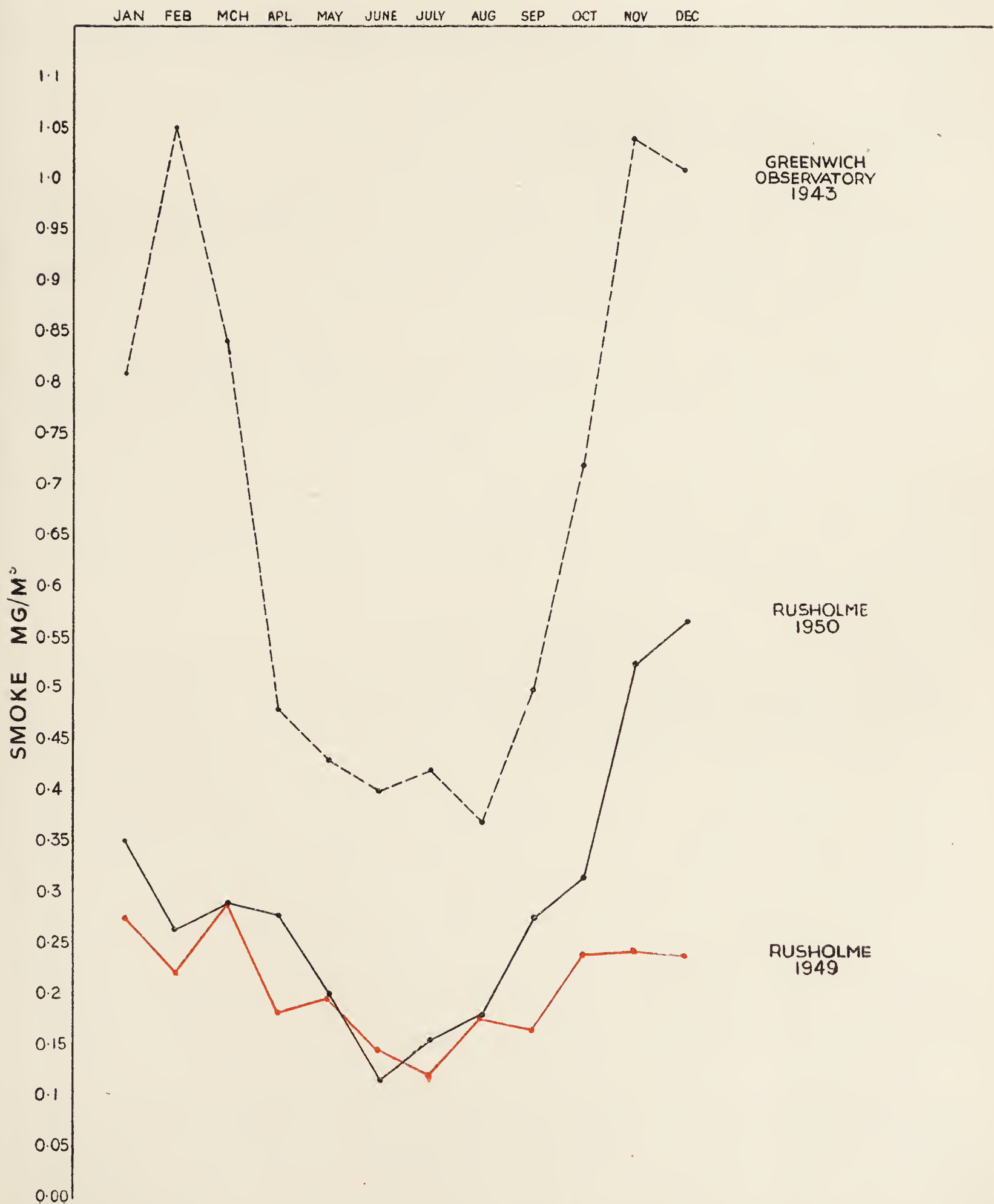
YEARLY CYCLE OF SULPHUR DIOXIDE BY THE VOLUMETRIC
METHOD, 1950.

MONTHLY MEAN CONCENTRATION AT RUSHOLME IN
VOLUMES OF SO₂ PER MILLION



YEARLY CYCLE OF SUSPENDED IMPURITY (SMOKE) AT
RUSHOLME, 1950

MONTHLY MEAN CONCENTRATION IN MILLIGRAMS
PER CUBIC METRE



Effluvium Nuisances.

The number of complaints concerning the emission of effluvium or dust from trade premises was relatively small having regard to the number and variety of industrial premises in which the processes carried on could give rise to objectionable emanations. Moreover, many of these premises are located in areas which were developed prior to the operation of town planning provisions and contain dwelling-houses in close proximity to trade and industrial buildings.

One of the cases investigated was concerned with the emission of fine cement dust powder used in making terrazo blocks. A remedy was effected by improved ventilation and the closing of doors previously left open during loading operations.

An unusual case arose at a hair-dressing establishment where fumes of a sulphide character were given off during permanent waving processes and penetrated into an adjoining dwelling-house. It proved necessary to serve a nuisance abatement notice to secure remedial action, which was achieved by the installation of suitable ventilation in the shop.

The emission of fumes from a varnish making plant gave rise to complaints from residents in the vicinity of the works concerned. Following the service of a statutory notice on the proprietors of the factory, improvements to the plant were effected, including the installation of suitable condensing and spraying apparatus : no further complaints were received.

Dust nuisance occurred at a works where a smokeless solid fuel furnace operated a rotary clay drying appliance. The products of combustion traverse a long rotary cylinder used for drying clay and as this substance was obtained from several sources, the physical properties of the virgin clay varied considerably. This circumstance resulted in uneven drying owing to difficulties in humidity control and gave rise to the discharge to the atmosphere of fine clay particles which reached institutional and other premises in the locality. Experiments are being carried out to determine the best practicable means of minimising dust emission and the avoidance of nuisance in the neighbourhood.

Offensive Trades.

There are 70 registered premises in the City at which offensive trades are carried on, many of these trades being concerned with the treatment of putrescible animal matter which is liable to give rise to offence : the supervision exercised is designed to obviate nuisance arising from unsatisfactory storage of materials or the discharge from the premises of objectionable emanations. At two registered premises on which large quantities of animal matter are processed, serious blow-fly infestation occurred during a spell of hot weather. In one case the infestation was due primarily to a temporary suspension of processing following a mechanical breakdown which necessitated renewal of plant ; in the other case it arose by reason of the receipt of an exceptionally large amount of animal matter which was beyond the capacity of the digesting appliances. On the advice of the inspectors, extensive spraying was carried out and the infestations were reduced to a minimum without effecting adversely the products manufactured at these premises.

Unsatisfactory conditions developed at registered premises occupied by a rag and bone dealer owing to a progressive increase in the amount of rags and other material received. As a result of representations to the occupier, larger and better sited premises were secured giving adequate facilities for preliminary sorting by collectors and for suitable storage of materials. The requirements of the Department were fulfilled and registration was granted by the Committee,

Co-operation with the City Surveyor and Engineer's Department is maintained concerning applications to establish offensive trades in areas subject to planning schemes within Town and Country Planning provisions.

Certain established trades in the City are subject to a limited period of registration ; in these cases renewals were approved by the Health Committee following reports made on the maintenance of satisfactory conditions in the conduct of the trades concerned.

Factories.

1. Inspections :—

Premises	Number on register	Inspections	Number of written notices	Occupiers prosecuted
(i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by Local Authorities	1,227	2,661	2	Nil
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	5,225	211	46	Nil
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers' premises) ..	11	23	Nil	Nil
Total	6,463	2,895	48	Nil

2. Cases in which defects were found :—

Particulars	Defects				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	By H.M. Inspector	
Want of cleanliness (Section 1)	6	10*	—	6	—
Overcrowding (Section 2)	1	1	—	1	—
Unreasonable temperature (Section 3)	—	—	—	—	—
Inadequate ventilation (Section 4) ..	—	—	—	—	—
Ineffective drainage of floors (Section 6)	—	—	—	—	—
Sanitary conveniences (Section 7)—					
(a) Insufficient	8	8†	—	7	—
(b) Unsuitable or defective	224	195‡	—	166	—
(c) Not separate for sexes	11	8§	—	7	—
Other offences against the Act, (not including offences relating to Outwork)	—	—	15	—	—
Totals	250	222	15	187	

* 4 from previous year.

† 2 from previous year.

‡ 69 from previous year.

§ 2 from previous year.

Factory Outworkers.

The supervision of premises in which specified classes of outwork are carried on, is effected under provisions contained in the Factories Act and the Public Health Act; these provisions are concerned with the employment of persons in unwholesome premises and to the prevention of the spread of infectious disease by articles made by outworkers.

There was an appreciable increase in the number of homeworkers employed by factory proprietors in the City, the number having risen from 2,111 in the previous year to 3,072 in 1950. Of the latter number 895 outworkers reside in districts outside the City whilst 54 outworkers employed by firms situated in other districts carry on outwork in their homes in Manchester.

Particulars of such employment and residence were sent to the Councils concerned, in accordance with the requirements of the Factories Act.

The majority of the outworkers in the City are engaged in making wearing apparel; other classes of work include stuffed toys, soft furnishings, lampshades, and umbrellas.

It was found that many outworkers are engaged in making shopping bags and handbags, but these articles are not included in the specified classes of work subject to supervision.

Systematic inspection of outworkers premises revealed a good standard of cleanliness generally, but in 24 cases it was necessary to issue cautions respecting premises in which unwholesome conditions were found. In these cases and in 23 other premises where sanitary defects existed remedial measures were effected. The inspectors found that at 69 factories the necessary lists of outworkers were not kept; nearly all these transgressions occurred at factories where the employment of outworkers was of recent origin and the omissions were rectified after informal intimation to the management concerned.

Infectious diseases occurred at 8 outworkers premises and appropriate action was taken, by the suspension of outwork and other measures, to obviate risk of the spread of infection.

Shops and Employment of Young Persons Act.

Consolidating legislation foreshadowed in the report of the Gowers Committee in 1949, was enacted during the year in the Shops Act, 1950, which merges the provisions of earlier statutes relating to the employment of shop assistants and of young persons in specified occupations. The administration of the Act is effected mainly by the Health Department; the provisions relating to the closing hours of shops in the evenings and on Sundays are dealt with by the Chief Constable. 3,639 visits made by the district sanitary inspectors were concerned largely with requirements as to the provision in shops of suitable and sufficient ventilation, heating, lighting, sanitary accommodation, washing arrangements and facilities for taking of meals by shop assistants. In several cases additional sanitary accommodation and washing facilities were provided as a result of informal action.

No complaints were received from shop assistants regarding infringements of the statutory requirements relating to weekly half-holidays and it is apparent that little difficulty now arises in this regard.

In 17 cases, however, the inspectors found that the requisite forms concerning shop assistants half-holidays or the employment of young persons were not exhibited; the omissions were rectified after the attention of the employers had been drawn to the requirements of the Act in this respect.

The night employment of young persons as crane drivers in loading of goods to and from vehicles gave rise to an investigation of the circumstances ; the practice was discontinued upon the management concerned being advised that it constituted an infringement of the relevant provisions. Similar remedial action was taken in another case in which young persons were employed in a wholesale business in the morning before 6 a.m. In this case adult labour was substituted for the youths formerly engaged.

Close co-operation is maintained with the City Architect to ensure that newly constructed shop premises conform with the requirements of the Shops Act in such matters as sanitary accommodation, washing facilities, etc. : all plans are forwarded to the Health Department for observations on these matters.

Sanitary Accommodation.

Additional sanitary accommodation was provided at 57 premises where the existing conveniences did not fulfil the requirements of the Factories Act, Shops Act, or the Public Health Act as to the suitability or sufficiency of sanitary accommodation for employees.

In each case plans and particulars of the alterations or additions were submitted to the Department showing the number and position of the conveniences together with the necessary details of the proposed construction. In some of the larger premises, whole ranges of water-closets and urinals were provided and washing facilities were installed in the separately ventilated ante chambers to the conveniences. The constructional, plumbing, and drainage work is subject to close inspection and tests on completion, and a high standard of workmanship is required before the arrangements are finally approved.

In some instances requests were received for supporting evidence to enable owners or occupiers of commercial premises to obtain licences from the Ministry of Works to install additional or modernised sanitary appliances and ablution arrangements. Whilst many of these schemes were desirable it was found impossible in all cases to certify the need for the installations under statutory requirements and the projected improvements in amenities must await an easement in the situation regarding the availability of labour and materials.

Pail Closets and Privies.

There remain in the City 472 premises at which the sanitary arrangements consist of pail closets or privies, the majority of the premises being situated in the outlying Wythenshawe area. At most of the premises concerned there are no sewer facilities available ; in the remaining cases the buildings have a relatively short residual life by reason of their general condition or on account of their situation in potential clearance or compulsory purchase areas.

In addition there are in use a varying number of temporary pail closets for operatives engaged in new building operations, mainly in the Wythenshawe district. The temporary structures are subject to inspection and approval by the Health Department before arrangements are made by the Cleansing Department for regular attention to the pails.

Tipping of Refuse.

There are 32 sites used for the disposal of refuse other than that collected by the Cleansing Department, the material tipped consisting of trade waste, builders' debris, and other refuse of an innocuous nature. The sites are visited systematically by the district sanitary inspectors to prevent the development of nuisances which may arise from the unauthorised tipping of offensive or combustible rubbish.

Early in the year an extensive clay pit and pond, which had previously given rise to nuisance from the emanation of sulphurous fumes, was completely filled in with trade refuse and earth excavated from new building sites, several thousand loads of material being used for the purpose. A nuisance abatement notice had been served in this case and the remedial measures referred to proved entirely effective, no further complaints being received.

During the later months of the year a disused colliery spoilbank in North Manchester was found to be on fire and consultations took place with representatives of the National Coal Board, resulting in efforts being made to extinguish the fire by blanketing the tip surface with layers of sand : these measures proved ineffective owing to deep-seated and extensive combustion in the tip. The discharge of sulphurous fumes gave rise to nuisance to residents in the neighbourhood and a further conference was held on the site, H.M. Inspector of Alkali Works being present in an advisory capacity. Subsequently, water spraying arrangements were installed and steel tubes were inserted at key points in the tip face to enable temperature readings to be taken for the purpose of determining the efficacy of water spraying and the extent and direction of the spread of combustion. There is evidence that the fire is well under control and a considerable diminution in the discharge of offensive fumes has taken place.

Approximately 70 per cent. of the household refuse in Manchester is disposed of by tipping on 3 outlying sites, by means of the controlled system of tipping ; this method ensures that the tipped refuse is properly consolidated in layers and covered with earth or other suitable material as the work proceeds : precautions are taken by screening and when necessary by spraying, to prevent soiled paper or dust being blown away from the tip faces during the operations.

The Cleansing Department deals with about 170,000 tons of refuse by this economical process of disposal and no nuisances were reported to have occurred during the year. One of the sites, about 16 acres in extent, adjoins the River Mersey in the South of the City, the land being low lying and somewhat marshy. The operations are intended to provide additional land for recreative purposes and are designed to strengthen the raised earth embankment of the river. Similar tipping is carried on at 2 sites in North Manchester, one of them being in the vale of the River Medlock. These sites are irregular in contour and when the tipping has been completed and the surfaces levelled and seeded, additional facilities will be made available for recreation in the district.

The Department co-operates closely with the Cleansing Department to obviate the risk of objectionable conditions arising at the tips. The repression of flies, crickets, and beetles is achieved by the use of insecticidal compounds in spray form : the prevention of rat infestation is referred to in the portion of the report relating to the work of the Rodent Control Section of the Department.

Rag Flock Act and Regulations.

There are 166 premises where the manufacture of upholstery, cushions, or bedding is carried on in the City ; 547 visits were made to these premises for the purposes of the Rag Flock Act, 1911, and the Regulations of 1912.

Under these provisions it is an offence to sell or use in making the articles mentioned, flock manufactured from rags or to have rag flock intended to be used for any such purpose, unless the flock conforms with the standard of cleanliness prescribed by the Regulations.

The degree of cleanliness of rag flock is determined by the chlorine content and 50 samples were obtained from bedding and upholstery premises for submission to the Public Analyst who certified that with 3 exceptions the Regulations as to cleanliness had not been infringed.

Legal proceedings were instituted in 3 cases, one of which related to an unsatisfactory sample of flock obtained from a bedding manufacturer in the City. Although a warranty was pleaded in this case, the Justices were not satisfied that the consignee had taken reasonable steps to ascertain the accuracy of the statement contained in the warranty and a fine of £2 was imposed.

In another case proceedings were taken against a flock manufacturer outside the City who was fined £5.

In the third case which was taken against the supplier of flock from which an unsatisfactory sample had been taken, the proceedings did not result in a conviction for an offence.

References have been made in previous reports to the inadequacy of the existing law to secure proper cleanliness of fillings used in the manufacture of upholstery, bedding and other articles of household use. During the year the Health Committee made further representations on this subject and these were conveyed by the Town Clerk to the Ministry of Health.

Organisations representing manufacturers and operatives in the trades involved have pressed for several years for comprehensive amending legislation and the introduction in the House of Lords early in 1951 of a new Bill, designated the Rag Flock and Other Filling Materials Bill, has been welcomed generally, particularly as most of the recommendations by the Inter-Departmental Committee on the Rag Flock Act are embodied.

Pharmacy and Poisons Act, 1933.

The provisions of the Act and the Poisons Rules relating to the retail sale of the poisons specified in Part II of the Poisons List are administered by the Health Committee.

The number of listed sellers was reduced by 130 during the year to a total of 1,295, including 212 new retailers, but 342 listed persons discontinued the sale of these poisons and their names were deleted from the lists. The sums received as payment of fees for renewals, etc., amounted to £354 3s.

The poisons involved are sold usually as constituents of insecticides, rodent exterminants, hair dyes, and household ammonia, mainly by grocers (890) and hardware dealers (266); other retailers include hairdressers, herbalists, seedsmen, florists, and agricultural suppliers.

The district sanitary inspectors are concerned with the investigation of applications for listing, inspection of records, labelling and storage requirements, and sales by non-listed persons. In the course of this supervision it was found necessary to caution 7 retailers for infractions of a minor character; on subsequent visits to the premises concerned it was found that the requirements of the Act and Rules were being observed.

Noise Nuisance.

Manchester Corporation Act, 1946, Section 40.

The number of complaints about noise nuisance from trade and other premises has again increased and is an indication that the public is increasingly aware of the powers of the Corporation in this connection.

The complaints related to a wide range of noises but were in the main concerned with noises produced in the conduct of trade or industrial processes carried on in districts in which dwelling-houses and industrial premises are contiguous. Most of the complainants alleged that the noises to which they objected occurred late at night or very early in the morning and disturbed their sleep.

Investigations in these cases were carried out during the hours mentioned and sometimes necessitated repeated visits by the inspectors in order to establish whether or not the conditions justified any action by the Department. Some of

the complaints proved to be of a trivial nature, but in certain cases it was apparent that the best practicable means were not being employed to prevent or mitigate nuisance ; informal representations were made accordingly to the proprietors of the premises from which the various noises were being emitted.

In every case suggestions made by the Department were readily adopted and most complainants subsequently expressed their satisfaction with the improvements effected.

The noises investigated included those caused by air compressor plant, pumping gear, circular saws, electric fans, machinery, refrigerator motors, dairies, and early morning milk delivery operations.

Other complaints related to domestic hobbies such as wood-working, boot repairing, and home sewing by electric sewing machines ; in one case singing at a men's club found disfavour with neighbouring householders.

Reference was made in the report last year to a proposal to obtain local powers to control the siting of pleasure fairs in the City, partly by reason of the incidence of complaints about noise created by amplified music, mechanical equipment, and engines used for the generation of electricity on fairgrounds set up on blitzed and other sites in close proximity to dwelling-houses.

The Corporation were unable to obtain these powers in the Act of 1950 and in one case in which complaints were received subsequently about fairground noises, three householders who were affected complained to the Justices under Section 99 of the Public Health Act with the result that the nuisance was abated promptly.

This procedure obviated the delay inseparable from the action which could have been taken by the Corporation under Section 40 of the Manchester Corporation Act and the nuisance procedure under Sections 92/4 of the Public Health Act, 1936.

Later in the year the Showmen's Guild approached the Corporation with a view to the use of suggested sites in the City being approved as fairgrounds and discussions are proceeding to that end.

• **Exhumations.**

District sanitary inspectors were present at 4 exhumations which took place at cemeteries within the City under the provisions of licences issued by the Home Office ; the human remains were re-interred in other graves in the same cemeteries.

The inspectors reported that the operations were conducted with proper regard for public health and with due care and decency in accordance with the terms of the Home Office licences.

Hairdressers' and Barbers' Premises.

Discussions took place during the year between representatives of the Town Clerk's and Health Departments regarding proposed byelaws for the purpose of securing the cleanliness of hairdressers' and barbers' premises registered under the Manchester Corporation Act, 1946, and the cleanliness of the instruments, towels, materials and equipment used ; the proposals related also to the cleanliness of persons employed in such premises.

Representatives of the Corporation departments concerned subsequently discussed proposed byelaw clauses with officials at the Ministry of Health and it is anticipated that byelaws will be made early in 1951.

Further action was taken to secure the registration of hairdressers, barbers, and their trade premises under the provisions of the Manchester Corporation Act, 1946.

Public Sanitary Conveniences.

The conveniences under the control of the Department number 150 and have accommodation as shown below :—

Males---

With urinal, water-closet, washing, and parcel accommodation	8
With urinal, water-closet, and washing accommodation	10
With urinal and water-closet accommodation	24
With urinal accommodation only	72
	<hr/>
	114
	<hr/>

Females—

With water-closet, washing, and parcel accommodation	10
With water-closet and washing accommodation.. .. .	15
With water-closet accommodation only	11
	<hr/>
	36
	<hr/>
Total	150
	<hr/>

The construction of new conveniences under the five years programme adopted by the Committee has continued and new conveniences for men and women were opened at Rusholme during the year. These conveniences are situated at the junction of Platt Lane and Wilmslow Road and are well used by the public, being accessible both from the main roads and Platt Fields Park.

Other conveniences are in course of construction on sites at Queen's Park, Sharston, Ardwick Green, and Brooks's Bar, at which site the work is nearing completion. It is anticipated that all these conveniences will be opened to the public in the summer of 1951; in addition it is hoped that projected new conveniences at Parrs Wood, East Didsbury, and Hollyhedge Road, Benchill, will be available later in the year.

In the report of 1949 reference was made to a diminution in malicious damage to structures and fittings in conveniences, but the position in this respect has worsened. The expense of repairs and replacements arising from this wanton damage constitutes an appreciable addition to maintenance costs and the standard of service to the public is temporarily reduced at the conveniences involved.

In consequence of deliberate destruction it became necessary to discontinue free hand-washing facilities at unattended conveniences; this service had been introduced experimentally by the Committee to encourage habits of personal cleanliness, but it was found that soap containers, towel dispensing machines and taps were smashed wantonly within a short period after installation.

Thefts of toilet paper and fittings of a moveable nature are prevalent at all the conveniences where it is impracticable to have attendants.

The co-operation of the general public could be of considerable assistance in the prevention of malicious damage and theft at the conveniences, but there is little evidence of public interest in this regard.

Free hand-washing facilities have been maintained at certain attended conveniences; although the facilities have not been used very much, the demand is sufficiently encouraging to justify extensions of this free service as opportunity permits.

Number of Inspections and Visits.

Primary inspections of dwelling-houses under the Public Health Act, 1936	17,340	Dwelling-houses 69 231
Subsequent inspections of dwelling-houses under the Public Health Act, 1933	44,873	
Primary inspections of infected houses	1,742	
Subsequent inspections of infected houses	148	
Visits <i>re</i> contacts—infectious disease	233	
Visits <i>re</i> infirm persons	65	
Disinfestations and removals	9	
Houses-let-in-lodgings	914	
Common lodging-houses	159	
Tents, vans, and sheds	1,477	
Homes of outworkers	1,783	58,170
Canal boats	483	
Bakehouses	1,374	
Food preparation premises	2,228	
Restaurant, etc., kitchens	2,317	
Factory canteens	242	
Hawkers of food and storage premises	126	
Sale of food on open sites	3,927	
Shops <i>re</i> sale of food	4,180	
Markets <i>re</i> sale of food	57	
Hotels, beerhouses	291	
Knackers yard	15	
Visits by sampling officers to obtain samples of water for chemical and bacteriological examination ..	50	
Visits by sampling officers to obtain samples of food and drugs	3,301	
Visits to registered premises of wholesale margarine dealers	102	
Offensive trades	146	
Observations <i>re</i> effluvium nuisances	547	
Works boiler plant <i>re</i> smoke abatement	1,160	
Refuse tips—Corporation	24	
Refuse tips—private	170	
Stables	169	
Piggeries	122	
Sanitary accommodation at schools	350	
Sanitary accommodation in parks	340	
Public sanitary conveniences	334	
Cesspools	5	
Land (refuse deposits, etc)	1,036	
Watercourses	74	
Streets, passages, roadways and footpaths	1,390	
Exhumations	7	
Factories	2,872	
Shops <i>re</i> Shops Acts	3,639	
Hairdressers and Barbers shops <i>re</i> Manchester Corporation Act, 1946.. .. .	67	
Cinemas, theatres, dance and billiard halls	112	
Churches	70	
Premises in connection with Rag Flock Act	547	
Other business premises	1,775	
Drain tests.. .. .	310	
Pharmacy and Poisons Act, 1933	793	
Supervision of default works (Drainage etc. branch)	4,450	
Railway stations	57	
Sale of verminous articles	29	
Rag and Bone Dealers' Barrows	11	
Noise nuisance	161	
Miscellaneous visits	19,157	

SPECIAL INSPECTORS.

The following statement indicates the work done for the Medical Officer of Health by the two Special Inspectors.

Number of visits *re*—

Infectious diseases	179
Food poisoning	} 315
Food contamination.. .. .	
Water supply	9
Vermin—Infested premises	35
Institutions	7
Tips	5
Nursing homes	83
Nursing agencies	9
Nuisances	11
Swimming baths	26
Export of washed rags, etc.	29
Public Health lectures	3
Massage or special treatment	111
Steam disinfectors	4
Tests of water applied at swimming baths	54
Day nurseries	21
Miscellaneous	88

Infectious Diseases.

Of infectious disease, particularly outstanding was the prevalence of *Shigella Sonnei* Dysentery which has persisted since early spring and throughout the year, particularly among nursery children. Fortunately the attacks were generally mild, but nevertheless a considerable amount of work was required in an effort to prevent the spread of infection.

Contacts found to be food handlers, were requested to submit faeces samples for examination and were excluded from their occupation if the examinations revealed positive results. The return to duties of such cases was prohibited pending three consecutive negative faeces samples being obtained.

Isolation of *S. paratyphi B.* and other *Salmonella* organisms from a water course.

S. paratyphi B. belonging to Vi-phage type taunton was isolated from a boy under observation in hospital because of suspicious illness.

No cases due to this type of organism had been reported in Manchester since 1949 when there were two cases but we were informed from a reliable source, two occurred in neighbouring districts.

There was, on investigation, nothing suspicious in relation to patient's food or movements. It was ascertained, however, that he had picnicked close to a water course near his home before his illness occurred and clay and mud from the stream had been spattered in his face by another boy.

Dr. M. T. Parker, Director of the Public Health Laboratory, Newton Heath, Manchester, having in mind the foregoing and that one of the patients he saw in 1949 had informed him that he played around the stream in question, decided to investigate and he directed his attention to the brook. He collected specimens by Moores pads and water from the water course, which yielded not only *S. paratyphi B.* belonging to Vi-phage type taunton but also other *Salmonella* organisms.

The investigations by Dr. Parker are continuing, not without difficulty, along the upper reaches of the river and its tributaries, into the territories of other local authorities. To date two sources of *S. paratyphi B.* infection have been proved and two varieties of *S. paratyphi B.* have been found in addition to *S. montevideo*, *S. oranienberg*, *S. typhi-murium*, *S. give*, *S. thompson*, *S. london*, *S. newport*.

Recovery of the virus of lymphocytic chorio-meningitis from house mice.

More house mice have been caught during 1950 (*vide* M.O.H.'s Annual Report 1949, Page 171) for the Department of Bacteriology, Manchester University, to further the above mentioned research work. It appears from the findings to date that there are two main foci of the disease in mice in Manchester within a mile and a quarter of the Town Hall.

Establishments for Massage or Special Treatment.

There were 113 licences issued to persons in 1950 to carry on establishments for massage or special treatment under Part IX of the Manchester Corporation Act, 1924, including three new licences and two licences where businesses were transferred to other persons. As seven licences were entirely ceded during the year there remain 106 such premises in use at the end of 1950.

All applications during the year for initial licences for establishments have been granted, but in one case action to revoke a licence was suspended pending the closure of the business and the automatic lapse of the licence on expiry date or on the contemplated sale of the business.

There was one complaint investigated with regard to the hygiene relating to turkish baths but in all other respects conditions were generally satisfactory.

Swimming Pools.

The decision of the Director of Parks and Cemeteries not to open for use the two outdoor public bathing pools was welcomed, in so far as these baths depended largely upon the fill and empty system of water conditioning, an unsatisfactory position and one which might have given rise to health problems.

Inspections of the one private outdoor pool and the six private and thirteen publicly owned swimming baths were carried out during the year and tests for alkalinity and the presence of free chlorine were made. Samples of water from the pools examined from time to time indicated that the high standard of water purity attained during 1949 was maintained in 1950.

At none of the baths was the much discussed "break point chlorination" of swimming bath water adopted, although the thoughts of those in charge tended that way and some little experiments were made to that end.

Export of Washed Rags, etc.

Facilities continued to be afforded by the Medical Officer of Health to merchants for the provision of certificates of cleanliness and sterility of second hand articles, in order to further shipments abroad. Many such certificates are issued following treatment of the articles on payment at the Corporation disinfecting station or after inspection during washing and sterilising on the merchant's premises.

Return as to Burial Grounds.

At the instance of the Town Clerk a return as to burial grounds contained in the Manchester Municipal Code of 1898, Vol. IV., was brought up to date for the purpose of record under changing conditions. This necessitated visits to all burial grounds in the Manchester area, used and unused, and in some cases sites were found where there was very little trace, if any, of former burial grounds.

Insect Pests.

Less activity than usual appeared noticeable in 1950 with relation to this type of vermin, possibly as a result of the below average seasonal temperatures. There were again many would be public spirited persons seeking confirmation of the "colorado" beetle which they had found.

Advice continued to be tendered on the eradication of varying types of insects and the usual spraying of the interiors of the day nurseries with a D.D.T. solution was carried out in the early spring.

Water Supply.

Visits of inspection were made to the site of the tunnelling in connection with the electrification of the Manchester—Sheffield railway in order to see that adequate steps were taken to prevent pollution of the Corporation watersheds and gathering grounds in the area. It was felt that methods of rat repression and possible faecal contamination occasioned by the increased human occupation of the locality as a result of the workings might threaten the purity of the water supply.

Investigations made with representatives of the local authority for the area and water samples obtained by and in conjunction with the Analyst of the Corporation Waterworks revealed that care had been exercised and that the standard of purity of the water had not changed thereby.

Flooding due to Burst Sewer.

An obstruction eventually located in a 9in. diameter soil sewer passing under land in Heaton Park, Manchester, caused considerable flooding of a vale in the Park to an average depth of five/six feet.

The flooding had continued apparently for some time before it was discovered and caused no little anxiety to those responsible for the sewer maintenance, particularly on health grounds.

On the authority of the Medical Officer of Health chlorination of the sewage was carried out during the flood and the despoiled area of land was later cleansed and chlorinated under direction of a Special Inspector.

Food Poisoning and Food Contamination.

The notifications of food poisoning under Section 17 of the Food and Drugs Act continue to rise steadily and the details forwarded to the Minister of Health in accordance with Circular 46/49, dated 24th May, 1949, are included in this part of the Report for comparison and interest.

Food causing Outbreak	Agent causing Outbreak	Cases		Clinical Features			
		Total Noti- fied	Total ascertained	Average Incuba- tion	Main Symptoms	Severity of illness	Durati of illnes
1. Duck egg?	S. typhi- murium	1	1	5 hrs.	Vomiting, diarrhoea, abdom- inal pain, collapse	Severe	hospi- alise
2. Ice cream? ..	S. typhi- murium	1	1	18 hrs.	Vomiting, diarrhoea, abdom- inal pain, collapse	Moderate	7 da
3. Not known ..	S. typhi- murium	1	2	?	Headache, pyrexia, diarr- hoea, abdominal pain	Moderate	14 da
4. Joint of beef ..	Coliforms, Proteus sp.	1	5	6 hrs.	Headache, pyrexia, diarr- hoea, abdominal pain	Moderate	2 da
5. Not known ..	S. typhi- murium, etc.	1	2	?	Abdominal pain and diarr- hoea	Moderate	3 da
6. Raw hen egg? ..	S. typhi- murium, etc.	1	1	?	Abdominal pain, diarrhoea, pyrexia	Moderate	hospi- alise
7. Hen egg?	S. typhi- murium, etc.	1	2	?	Abdominal pain and diarr- hoea	Moderate	9 da
8. Hen egg?	S. typhi- murium, etc.	1	1	?	Pyrexia, vomiting, diarrhoea, and abdominal pain	Moderate	7 da
9. Synthetic cream?	C. group S. oranien- burg	1	1	24 hrs.	Abdominal pain and diarr- hoea	Moderate	8-9 day
10. Not known ..	S. typhi- murium	1	1	—	Abdominal pain and diarr- hoea	Moderate	hospi- alise
11. Hen egg?	S. typhi- murium	1	2	—	Vomiting, pyrexia, and diarr- hoea	Mild	3 da
2. Synthetic cream?	S. typhi- murium	1	2	—	Vomiting, pyrexia, diarrhoea, and abdominal pain	Severe	hospi- alise
13. Fish?	S. typhi- murium	1	2	?	Vomiting and diarrhoea ..	Mild	3-4 day
14. Not known ..	S. typhi- murium	1	2	?	Diarrhoea, nausea, and abdominal pain	Mild	3-4 day
15. Not known ..	S. typhi- murium	1	1	Few hrs.	Diarrhoea, vomiting, and abdominal pain	Moderate	hospi- alise
16. Not known ..	S. derby	1	1	?	Loose stools	Mild	1 da
17. Not known ..	S. typhi- murium	1	1	16 hrs.	Diarrhoea, vomiting, abdom- inal pain, and pyrexia	Moderate	hospi- alise
18. Not known ..	S. typhi- murium	1	1	9 hrs.	Rigor, abdominal pain, and vomiting	Moderate	hospi- alise
19. Not known ..	S. typhi- murium	1	2	?	Vomiting and diarrhoea ..	Moderate	hospi- alise
20. Not known ..	S. typhi- murium	1	1	?	—	—	—

of Food Poisoning, 1950.

Results of Laboratory Investigations				Origin and preparation of food causing illness	Place at which food causing illness was consumed	Estimated Number at risk	Probable origin of Infection or Contamination of Food
Cases	Food Samples	Food Handlers	Other				
1 positive	—	—	1 contact negative	Possibly duck egg purchased locally, consigned from Wales	Home	2	M.O.H. for area notified.
1 positive	—	—	3 negative contacts	Probably ice cream	Manchester cinema	2	
2 positive	—	—	4 contacts negative	?	?	6	Transient carrier?
Nil	Beef positive	2 negative	Nil	Locally supplied joint	Hotel	80	Putrefying meat. Patients refused samples.
2 positive	—	—	1 contact negative	?	Home	4	Food common to all.
1 positive	—	—	6 contacts negative	Patient has raw egg in milk regularly	Home	1	Uncooked egg.
2 positive	—	—	2 contacts negative	?	Home	4	Underdone egg.
1 positive	—	—	Hen drop-pings negative 2 contacts negative	Domestic poultry	Home	3	Father laboratory technician.
1 positive	—	—	7 contacts negative	Large store	Large store	1	Patient's father had diarrhoea the previous month.
1 positive	—	—	1 contact negative	—	—	—	Returned from holiday in Jersey. Notified as dysentery.
1 positive	—	—	4 contacts negative	?	Home	1	Egg lightly boiled.
2 positive	—	—	4 contacts negative		Relative's home	1	Cream cakes.
2 positive	—	—	2 contacts		Home	—	
2 positive	—	—	2 contacts negative	—	—	2	Isolated case?
1 positive	—	—	2 contacts negative	—	Home	2	Mushrooms purchased locally and retained 4 days before consumption.
1 positive	—	—	3 contacts negative	—	—	—	Isolated case.
1 positive	—	—	2 contacts negative	—	Home	1	Raw hen egg consumed in milk day before onset.
1 positive	—	—	—	Large store	Home	1	Meal prior to illness consisted of egg and bacon.
2 positive	—	—	3 contacts negative	—	—	5	Food common to all.
1 positive	—	—	—	—	—	—	Stated to have recovered and left the district.

Food causing Outbreak	Agent causing Outbreak	Cases		Clinical Features			
		Total Noti- fied	Total ascertained	Average Incuba- tion	Main Symptoms	Severity of illness	Duration of illness
21. Not known ..	S. typhi- murium	1	1	?	Diarrhoea and vomiting ..	Mild	hospit- alised
22. Not known ..	S. typhi- murium	5	5	7 hrs.	Diarrhoea and abdominal pain	Moderate	4 days
23. Not known ..	S. man- hattan	1	1	?	Diarrhoea and vomiting ..	Mild	7 days
24. Not known ..	S. typhi- murium	1	1	?	Lobar pneumonia. Has his- tory of gastro-enteritis	Severe	hospit- alised
25. Not known ..	S. typhi- murium	1	1	?	Diarrhoea and abdominal pain	Moderate	hospit- alised
26. Pressed beef and veal	Staph- aureus	5	5	2½ hrs.	Diarrhoea, acute abdominal pain, and vomiting	Moderate	hospit- alised
27. Not known ..	S. typhi- murium	4	4	4 hrs.	Vomiting, diarrhoea, and abdominal pain	Moderate	4 days
28. Not known ..	S. typhi- murium	13	2	?	Vomiting, diarrhoea, and abdominal pain	Mild	2-3 days
29. Milk	Staph- aureus	Nil	16	2-3 hrs.	Nausea, severe abdominal pain, vomiting, and diarr- hoea	Moderate to severe	3-4 days
30. Cold roast mutton	Cl. welchii	6	55	16-24 hrs.	Diarrhoea and abdominal pain	Mild	Few hrs
31. Not known ..	S. typhi- murium	1	1	?	Vomiting, diarrhoea, abdom- inal pain, pyrexia	Moderate	hospit- alised
32. Not known ..	S. typhi- murium	1	3	?	Nil	Mild	—
33. Not known ..	S. typhi- murium	1	1	?	Diarrhoea	Mild	7 days
34. Not known ..	S. typhi- murium	1	1	—	Ni	Mild	—
35. Not known ..	S. essen	1	1	—	Diarrhoea	Mild	3 days
36. Not known ..	Organisms related to Cl. welehii	—	285	7-15 hrs.	Diarrhoea and abdominal pain (little vomiting)	Mild	24 hrs.
37. Not known ..	S. typhi- murium	1	2	—	Diarrhoea	Mild	Week
38. Not known ..	S. typhi- murium	—	21		Notified during year from Children's Hospita have been infected i		

Results of Laboratory Investigations				Origin and preparation of food causing illness	Place at which food causing illness was consumed	Estimated Number at risk	Probable origin of Infection or Contamination of Food
Cases	Food Samples	Food Handlers	Other				
1 positive	—	—	5 contacts negative	—	—	6	Illness occurred a month before diagnosis. Details vague.
5 positive	—	—	—	Retail shop. Possibly large tin tongue (sliced for retailing)	Patient's home	5	No tinned tongue available. No other cases.
1 positive	—	—	3 contacts negative	—	—	1	Isolated case.
1 positive	—	—	3 contacts negative	—	—	1	Patient 2 years old has had gastro-enteritis for 18 months.
3 positive	1 negative	—	4 contacts negative	Bakery and large store	Home	7	Meat pies suspected.
5 positive	1 positive	11 positive	—	Butcher's premises	Two adjoining houses	5	—
4 positive	—	—	1 contact negative	Possibly tinned crayfish	Home	5	No crayfish available as sample.
2 positive	—	—	11 contacts negative	?	No common food ascertained	13	—
4 positive	9 negative	2 negative	3 negative faeces	Milk when made into soft cheese and sour cream	Manchester and Prestwich	?	Probably human source.
3 positive	2 positive	Nil	—	School canteen	School	1,200	Probably human source.
1 positive	Nil	—	3 contacts negative	—	No evidence	—	Isolated case.
3 positive	—	—	4 contacts negative	—	No evidence	—	Isolated case.
1 positive	—	—	3 contacts negative	—	—	—	—
1 positive	—	—	—	—	—	1	Carrier?
1 positive	—	—	3 contacts negative	—	Works canteen	—	Isolated case after Christmas Party.
1 negative	1 negative	2 negative	—	Central School Kitchen	School and kitchen	2,400	Cold roast beef suspected. Insufficient protection? Refrigerator out of order
3 positive	—	13 positive	—	—	—	—	—
2 positive	—	—	3 contacts negative	—	—	—	—
(positive cases) suspected to hospital							

SUSPECTED FOOD POISONING CASES—NO AGENT

Food causing Outbreak	Agent causing Outbreak	Cases		Clinical Features			
		Total Noti- fied	Total ascertained	Average Incuba- tion	Main Symptoms	Severity of illness	Duration of illness
39. Not known ..	Not known	1	1	?	Vomiting and diarrhoea. Aged 77 years—died prior to visit	—	—
40. Not known ..	Not known	1	1	3-4 hrs.	Diarrhoea, vomiting, abdom- inal pain, collapse	Severe	4 days
41. Not known ..	Not known	1	1	2-3 hrs.	Diarrhoea, vomiting, abdom- inal pain, collapse	Severe	3 days
42. Meat and potato stew suspected	Not known	2	3	—	Diarrhoea	Mild	1 day
43. Stewed rabbit suspected	Not known	1	1	15 hrs.	Diarrhoea and vomiting ..	Severe	7 days
44. Not known. Saus- age suspected	Not known	1	1	3-4 hrs.	Diarrhoea	Mild	2 days
45. Not known ..	Not known	1	1	5 hrs.	Swollen face and raised spots on body	Mild	2 days
46. Cold roast beef suspected	Not known	51	134	12-14 hrs.	Nausea, diarrhoea, abdominal pain, some vomiting	Mild	2-3 days
47. Not known ..	Not known	2	2	—	Vomited	Very mild	1 hr.
48. Not known. Cold roast beef suspected	Not known	—	59	12 hrs.	Diarrhoea and abdominal pain	Mild	12-16 hrs.
49. Not known. Cold roast beef suspected	Not known	—	77	13-15 hrs.	Diarrhoea and abdominal pain	Mild	24 hrs.
50. Not known ..	Not known	5	6	24 hrs.	Diarrhoea, abdominal pain, and vomiting	Moderate	Few days
51. Not known ..	Not known	1	1	—	Diarrhoea	Mild	hospit- alised
52. Not known ..	Not known	1	5	3 hrs.	Abdominal pain, diarrhoea, and vomiting	Mild	Few days
53. Not known ..	Not known	1	1	—	Diarrhoea	Mild	Few days
54. Not known ..	Not known	1	1	Few hrs.	Vomiting and abdominal pain	Mild	2 days
55. Not known ..	Not known	—	6	Few hrs.	Abdominal pain	Mild	2 hrs.
56. Not known ..	Not known	—	33	6-12 hrs.	Abdominal pain and diarr- hoea	Mild	2 days

IDENTIFIED IN FOOD, FAECES, OR OTHER SAMPLES.

Results of Laboratory Investigations				Origin and preparation of food causing illness	Place at which food causing illness was consumed	Estimated Number at risk	Probable origin of Infection or Contamination of Food
Cases	Food Samples	Food Handlers	Other				
—	—	—	—	Retail shop. Corned beef suspected	Home	—	Isolated case.
—	—	—	—	Meal supplied on showground	Lancashire town	—	Meal at show suspected.
—	—	—	—	Stew repeated from day to day	Home	5	Contamination during storage.
1 negative	—	—	1 contact negative	Relatives' home	Liverpoo	4	Contamination during storage.
1 negative	1 negative	—	—	Sausage manufacturers	Home	2	No organisms associated with food poisoning found.
—	—	—	—	Fried fish suspected	Adjoining town	—	—
—	2 negative	16 negative	—	Central School Kitchen	School	1,960	Insufficient protection. Assistant cook "not feeling well."
—	—	—	—	Central School Kitchen	School	107	—
8 negative	1 negative	44 negative	—	Central School Kitchen	School	1,970	Insufficient protection?
1 negative	1 negative	—	—	Central School Kitchen	School	1,633	Insufficient protection.
—	2 negative	—	—	—	Wedding party	—	Various foods.
—	—	—	3 contacts negative	—	—	—	—
—	1 negative	—	—	Various foods	Licensed premises	120	Various foods prepared by family and friends.
1 negative	—	—	—	—	—	—	—
—	—	—	—	Factory	Factory canteen	—	Reheated meat suspected (consumed at his home in Liverpool).
—	—	—	—	Factory canteen	Factory canteen	9	Fried fish suspected.
4 negative	1 negative	6 negative	—	Warehouse canteen	Warehouse canteen	280	Roast beef and various other foods consumed.

REPORT OF THE PUBLIC ANALYST.

By A. N. Leather, B.Sc., F.R.I.C.

STAFF.

A. N. Leather, B.Sc., F.R.I.C.	.. .. .	Public Analyst.
F. Dixon, B.Sc., F.R.I.C.	.. .. .	Deputy Public Analyst.
F. C. Shenton, A.R.T.C.S., A.R.I.C.	.. .. .	Assistant Analyst (from 12.6.50)

The report contained in the following pages covers the first complete calendar year (January—December) after the removal of the laboratory to Whitworth House, 146 High Street, Manchester, 13, from the portion of the University premises in York Place where it was previously housed.

The removal almost exactly coincided with the retirement of my predecessor, Mr. Harri Heap, after he had been Public Analyst for the City for some thirty years. During most of that time the University administered a bacteriological laboratory service under the title of the Public Health Laboratory, and where it was deemed advisable that chemical and bacteriological results should be considered together, the side-by-side location of the laboratories was an advantage.

On the institution of the various Regional Public Health Laboratories, the University ceased to provide facilities for a general bacteriological service, and the principal laboratory which had been used for the service, Whitworth House, became vacant. Internal reorganisation of the University Departments in the York Place buildings made it desirable for the University to take over for its own use the accommodation hitherto allotted to the Public Analyst. It was therefore agreed that the Public Analyst and his staff should occupy the Whitworth House laboratory, as a separate section of the Health Department of the Corporation.

The distance of the removal was only a matter of fifty yards or so, but the nature of the work to be performed in the laboratory required a very considerable internal reconstruction of Whitworth House. The removal was done without interruption of the regular analysis of samples of food taken in the City. That fact is a tribute to the tenacity and devotion of the staff under the guidance of the Deputy Public Analyst, Mr. F. Dixon; particularly in the period just after Mr. Heap's retirement. Some difficulties, however, remained for several months after the actual removal. Unforeseen delays in the supply of certain fittings kept some parts of the laboratory out of use. The result was that the analysis of samples of drinking-water and of rag flock had not been restarted by January, 1950, but were resumed later in the year.

By far the largest part of the work of the laboratory consists of course in the analysis of samples submitted according to the provisions of the Food and Drugs Act and related Acts and Regulations. This part of the work is accordingly described first.

Table 1 sets out the kinds of samples examined and the general results of analysis, while Tables 2 and 2A give the average composition of milk for the four quarters and for the whole year,

TABLE 1.
Food and Drugs Act, 1938.

Summary of samples examined during the year ended 31st December, 1950.

Article	Number examined				Number adulterated or otherwise giving rise to irregularity				Per cent. Adulteration
	Formal	Informal	Private	Total	Formal	Informal	Private	Total	
Milk.. .. .	813	474	2	1,289	163	34	2	199	15.4
Milk (Sterilised) .. .	137	47	—	184	1	—	—	1	0.5
Ice Cream .. .	20	45	7	72	—	—	—	—	—
Alcoholic liquids, Spirits .. .	23	1	—	24	—	1	—	1	4.2
Alcoholic liquids, Wines .. .	21	—	—	21	—	—	—	—	—
Alcoholic liquids, excluding Wines and Spirits .. .	8	17	—	25	—	—	—	—	—
Bacon and Ham .. .	37	—	—	37	—	—	—	—	—
Baking and Golden Raising Powder ..	1	15	—	16	—	—	—	—	—
Barley .. .	14	2	—	16	—	—	—	—	—
Biscuits .. .	12	7	—	19	—	—	—	—	—
Blanc Mange and Dessert Powder ..	1	14	—	15	—	—	—	—	—
Bottled fruit and bottled fruit juice..	3	12	—	15	—	—	—	—	—
Bread .. .	17	6	—	23	—	—	—	—	—
Butter .. .	43	1	—	44	—	1	—	1	2.3
Cakes and Pastries .. .	34	11	—	45	—	—	—	—	—
Cake Decoration .. .	—	3	—	3	—	—	—	—	—
Cake and Pudding Mixtures .. .	2	15	—	17	—	—	—	—	—
Calf's Foot Jelly .. .	—	1	—	1	—	—	—	—	—
Canned:—									
Fish .. .	—	18	—	18	—	—	—	—	—
Fruit .. .	—	32	—	32	—	—	—	—	—
Meat Products .. .	1	34	—	35	—	—	—	—	—
Puddings (Sweet) .. .	—	9	—	9	—	—	—	—	—
Soup .. .	—	23	—	23	—	—	—	—	—
Vegetables .. .	—	25	—	25	—	—	—	—	—
Various .. .	—	4	—	4	—	—	—	—	—
Cereal Beverage Powder .. .	—	1	—	1	—	—	—	—	—
Cereals (prepared) .. .	12	3	—	15	—	—	—	—	—
Cheese .. .	27	9	—	36	—	—	—	—	—
Chocolate Powder .. .	1	1	—	2	—	—	—	—	—
Christmas Puddings .. .	—	8	—	8	—	—	—	—	—
Cocoa .. .	15	3	—	18	—	—	—	—	—
Coconut .. .	7	2	—	9	—	—	—	—	—
Coffee .. .	33	2	—	35	—	—	—	—	—
Coffee and Chicory Extract (liquid) ..	—	21	—	21	—	1	—	1	4.8
Coffee Extract (dry) .. .	3	5	—	8	1	2	—	3	3.7
Colouring .. .	—	1	—	1	—	—	—	—	—
Cooking Fat .. .	31	10	—	41	—	—	—	—	—
Cornflour and Prepared Starch .. .	15	11	—	26	—	—	—	—	—
Custard Powder .. .	13	9	—	22	—	—	—	—	—
Dried Fruits:—									
Vine fruits.. .	24	—	—	24	—	—	—	—	—
Others.. .	13	11	—	24	—	—	—	—	—
Dried Herbs .. .	—	10	—	10	—	—	—	—	—
Dried Pulses .. .	32	2	—	34	2	—	—	2	5.9
Dried Soup .. .	—	3	—	3	—	—	—	—	—
Dripping.. .	6	2	—	8	—	—	—	—	—
Egg, Dried .. .	1	—	—	1	—	—	—	—	—
Fat (sweetened) .. .	—	1	—	1	—	—	—	—	—
Fish Dressing .. .	—	6	—	6	—	1	—	1	16.7
Fish (prepared) .. .	—	5	—	5	—	—	—	—	—
Flavouring .. .	—	10	—	10	—	—	—	—	—
Flour, Plain .. .	7	2	—	9	—	—	—	—	—
Flour, Self Raising .. .	13	2	—	15	—	—	—	—	—
Food Beverage Powder .. .	7	10	—	17	—	—	—	—	—
Gelatine .. .	—	8	—	8	—	—	—	—	—
Golden Syrup and Treacle.. .	—	9	—	9	—	—	—	—	—
Gravy Browning .. .	—	18	—	18	—	—	—	—	—
Gravy Powder .. .	—	9	—	9	—	—	—	—	—
Ground Almonds .. .	2	1	—	3	—	—	—	—	—
Honey .. .	7	7	—	14	—	—	—	—	—
Ice Cream Powder .. .	—	1	—	1	—	—	—	—	—
Jelly (Table Jelly Preparations).. .	—	21	—	21	—	—	—	—	—
Lard .. .	2	—	—	2	—	—	—	—	—
Macaroni and Vermicelli .. .	10	—	—	10	—	—	—	—	—
Margarine .. .	43	—	—	43	—	—	—	—	—
Meat Extract .. .	—	9	—	9	—	—	—	—	—

TABLE 1—continued

Article	Number examined				Number adulterated or otherwise giving rise to irregularity				Per. cent Adult-eration
	Formal	Informal	Private	Total	Formal	Informal	Private	Total	
Meat Products:—									
Meat and Fish Paste	—	10	—	10	—	—	—	—	—
Sausage	22	1	1	24	1	—	1	2	8.3
Various	50	19	—	69	—	—	—	—	—
Meat, Raw	—	1	—	1	—	—	—	—	—
Milk, Condensed	—	31	—	31	—	4	—	4	12.9
Milk, Dried	—	2	—	2	—	—	—	—	—
Milk Food Powder	1	7	—	8	—	—	—	—	—
Milk Whipping Compound.. .. .	—	2	—	2	—	—	—	—	—
Nuts	4	4	—	8	—	—	—	—	—
Oatcakes	—	2	—	2	—	—	—	—	—
Oats	11	4	—	15	—	—	—	—	—
Oil, Edible and Cooking	—	2	—	2	—	—	—	—	—
Peanut Butter	—	2	—	2	—	—	—	—	—
Pectin Preparations	—	2	—	2	—	—	—	—	—
Pickles	21	25	—	46	—	—	—	—	—
Potato Crisps	1	4	—	5	—	—	—	—	—
Preserves	61	21	—	82	1	1	—	2	2.4
Rennet Essence	—	6	—	6	—	—	—	—	—
Rice	19	—	—	19	—	—	—	—	—
Saccharin Tablets.. .. .	—	3	—	3	—	—	—	—	—
Sago	9	—	—	9	1	—	—	1	11.1
Salad Cream and Mayonnaise	—	21	—	21	—	—	—	—	—
Salt	—	11	—	11	—	—	—	—	—
Sandwich Spread	—	8	—	8	—	—	—	—	—
Sauces:—									
Tomato	—	7	—	7	—	—	—	—	—
Other than Tomato.. .. .	—	22	—	22	—	—	—	—	—
Semolina.. .. .	7	4	—	11	—	—	—	—	—
Soft Drink Powder	—	10	—	10	—	2	—	2	20
Soft Drinks	42	36	—	78	—	—	—	—	—
Soya Flour	1	—	—	1	—	—	—	—	—
Spices	4	35	—	39	—	—	—	—	—
Stuffing	—	17	—	17	—	—	—	—	—
Suet (prepared)	5	3	—	8	—	—	—	—	—
Sugar	60	1	—	61	—	—	—	—	—
Sweets	29	10	1	40	—	—	—	—	—
Sweet Spread (Invert Sugar)	—	9	—	9	—	—	—	—	—
Synthetic Cream	—	1	—	1	—	—	—	—	—
Tapioca	2	—	—	2	—	—	—	—	—
Tea	35	1	—	36	—	—	—	—	—
Tomato Concentrate	—	1	—	1	—	—	—	—	—
Vinegar (Malt)	27	6	—	33	—	—	—	—	—
Vinegar (Non-brewed).. .. .	—	3	—	3	—	—	—	—	—
Water-glass	—	1	—	1	—	—	—	—	—
Yeast Extract	—	1	—	1	—	—	—	—	—
Total Foods	1,922	1,405	11	3,338	170	47	3	220	6.6
Ammoniated Tincture of Quinine	1	—	—	1	—	—	—	—	—
Antacid Powder	—	3	—	3	—	—	—	—	—
Antiseptic Fluid	—	2	—	2	—	—	—	—	—
Aspirin Tablets	—	8	—	8	—	—	—	—	—
Bicarbonate of Soda	—	5	—	5	—	—	—	—	—
Bismuth Mints	—	1	—	1	—	—	—	—	—
Blackcurrent Syrup	3	—	—	3	—	—	—	—	—
Blood Tablets	—	1	—	1	—	—	—	—	—
Blaud's Pills.. .. .	1	1	—	2	—	—	—	—	—
Boracic Acid.. .. .	—	1	—	1	—	—	—	—	—
Borax	—	2	—	2	—	—	—	—	—
Compound Glycerine of Thymol	2	1	—	3	—	—	—	—	—
Compound Tincture of Gentian	1	—	—	1	—	—	—	—	—
Compound Tincture of Rhubarb	1	—	—	1	—	—	—	—	—
Cough Mixture	—	4	—	4	—	—	—	—	—
Cream of Magnesia	—	1	—	1	—	1	—	1	100
Disinfectant	—	5	—	5	—	—	—	—	—
Dispensed Medicine	—	—	1	1	—	—	—	—	—
Easton's Syrup	—	1	—	1	—	—	—	—	—
Epsom Salts	—	5	—	5	—	—	—	—	—
Extract of Malt with Cod Liver Oil.. .. .	—	2	—	2	—	—	—	—	—
Fever Cure	—	3	—	3	—	—	—	—	—
Friar's Balsam	3	—	—	3	—	—	—	—	—
Glauber's Salt	—	2	—	2	—	—	—	—	—
Glucose Beverage	—	2	—	2	—	—	—	—	—
Glucose Tablets	—	1	—	1	—	—	—	—	—
Glucose and Vitamin D	—	1	—	1	—	—	—	—	—
Glycerine	—	4	—	4	—	—	—	—	—

TABLE 1—continued

Article	Number examined				Number adulterated or otherwise giving rise to irregularity				Per. cent. Adult-eration
	Formal	Informal	Private	Total	Formal	Informal	Private	Total	
Glycerine, Lemon, and Honey	—	2	—	2	—	—	—	—	—
Gregory Powder	1	—	—	1	—	—	—	—	—
Hydrogen Peroxide	—	1	—	1	—	—	—	—	—
Inhalant	—	2	—	2	—	—	—	—	—
Insecticide Powder	—	1	—	1	—	—	—	—	—
Laxative (Proprietary)	—	2	—	2	—	—	—	—	—
“Lime Sulphur” Tablets.. .. .	1	—	—	1	—	—	—	—	—
Liquid Extract of Cascara Sagrada ..	2	—	—	2	—	—	—	—	—
Magnesia Fluid	—	3	—	3	—	—	—	—	—
Malt Extract.. .. .	—	4	—	4	—	—	—	—	—
Malt Extract and Cod Liver Oil	—	1	—	1	—	—	—	—	—
Medicated Sweets	12	8	—	20	—	1	—	1	5
Milk of Magnesia.. .. .	—	2	—	2	—	—	—	—	—
Oil:—									
Almond	1	—	—	1	—	—	—	—	—
Camphorated	2	—	—	2	—	—	—	—	—
Castor	4	—	—	4	—	—	—	—	—
Cod Liver	—	2	—	2	—	—	—	—	—
Eucalyptus.. .. .	7	1	—	8	2	—	—	2	25
Liquid Paraffin.. .. .	5	3	—	8	—	—	—	—	—
Olive	4	8	1	13	—	—	—	—	—
Tea Seed	—	1	—	1	—	—	—	—	—
Olive Oil and Raspberry Vinegar	—	1	—	1	—	—	—	—	—
Ointment, Antiseptic	—	1	—	1	—	—	—	—	—
Ointment, “Stainless” Iodine	—	1	—	1	—	—	—	—	—
Ointment, Sulphur	—	3	—	3	—	—	—	—	—
Ointment, Zinc	—	2	—	2	—	—	—	—	—
Ointment, Zinc and Castor Oil.. .. .	—	1	—	1	—	—	—	—	—
Paregoric	1	—	—	1	—	—	—	—	—
Parrish’s Chemical Food	1	1	—	2	—	—	—	—	—
Proprietary Tonic Food	—	1	—	1	—	—	—	—	—
Raspberry Vinegar	—	1	—	1	—	—	—	—	—
Rose Hip Syrup	—	2	—	2	—	—	—	—	—
Saline, Effervescent	—	5	—	5	—	—	—	—	—
Saline, Non-effervescent	—	1	—	1	—	—	—	—	—
Senna Pods	—	1	—	1	—	—	—	—	—
Spirit of Camphor	1	—	—	1	—	—	—	—	—
Spirit of Sal Volatile	1	4	—	5	—	3	—	3	60
Syrup of Squills	5	—	—	5	—	—	—	—	—
Tincture of Iodine	3	—	—	3	2	—	—	2	66
Tonic Yeast Tablets	—	1	—	1	—	—	—	—	—
Vapour Rub	—	1	—	1	—	—	—	—	—
Vaseline	—	1	—	1	—	—	—	—	—
Vitamin Preparation	—	2	—	2	—	—	—	—	—
Total Drugs	63	127	2	192	4	5	—	9	4.7
Add Total Foods	1,922	1,405	11	3,338	170	47	3	220	6.6
Total Food and Drugs	1,985	1,532	13	3,530	174	52	3	229	6.5
All Milk (including Sterilised Milk)..	950	521	2	1,473	164	34	2	200	13.6

TABLE 2.
Composition of Milk.
Quarterly Average Table.

Quarter	All Milks				Genuine Milks				Adulterated Milks			
	No.	Non-fatty solids	Fat	Total solids	No.	Non-fatty solids	Fat	Total solids	No.	Non-fatty solids	Fat	Total solids
First	346	8.66	3.23	11.89	290	8.71	3.31	12.02	56	8.38	2.80	11.18
Second	381	8.69	3.22	11.91	294	8.74	3.37	12.11	87	8.52	2.69	11.21
Third*	379	8.72	3.43	12.15	352	8.74	3.48	12.22	27	8.59	2.78	11.37
Fourth	365	8.71	3.60	12.31	337	8.75	3.62	12.37	28	8.23	3.24	11.47

* Excluding 2 private samples (adulterated).

TABLE 2A.
Annual Average Table.

Year	All Milks				Genuine Milks				Adulterated Milks			
	No.	Non-fatty solids	Fat	Total solids	No.	Non-fatty solids	Fat	Total solids	No.	Non-fatty solids	Fat	Total solids
1950*	1,471	8.70	3.37	12.07	1,273	8.74	3.45	12.19	198	8.45	2.81	11.26

*Excluding 2 private samples (adulterated).

**Explanation of the words “Adulterated” and “Adulteration”
in this report, and some general comments thereon.**

Every public analyst is required to report each quarter upon the samples submitted to him under the Food and Drugs Act, and to give the tabulated results of their examination. The form of such reports is laid down in general terms by official circulars. In particular the public analyst is required to report upon the number of samples “adulterated or otherwise giving rise to irregularity,” and in the case of “adulterated samples, etc.,” to state the nature of the “adulteration or irregularity.”

In the 1870's when the first comprehensive Food and Drugs Acts came into force, gross adulteration was widespread, and in those days it was easier to distinguish in a more clear-cut manner between the articles which had been adulterated and those which had not. Over a period of years those Acts have been effective in reducing the amount of gross adulteration to comparatively small proportions.

At the present time when many regulations are in force (under the Food and Drugs Act and related Acts) laying down standards for articles of food, also governing the use of preservatives and colouring matters, and requiring many kinds of articles to be labelled in prescribed ways, it may often happen that an article contravenes one or other of such regulations when yet it could not ordinarily be described as adulterated in the old sense. Such articles, however, are included in the description “adulterated or otherwise giving rise to irregularity,” sometimes written “adulterated, etc.,” and it is usual to include all those articles as “adulterated” in calculating the “percentage adulteration.”

Articles not returned as “adulterated, etc.,” are usually returned as “genuine.” In dealing with many hundreds of samples, cases must arise in which there is doubt whether the sample can properly be returned as genuine or whether it does in fact “give rise to irregularity” in some degree. Some public analysts have introduced into their reports a third category for articles which they describe as “doubtful” or “inferior.” There is no uniformity in this respect, and in the present report the more usual custom will be maintained of attempting to classify the samples completely without use of the third category.

In considering adulteration, a general division of all samples will be made into two groups, milk samples and samples other than milk.

Adulterated Milk Samples.

Assessment of Milk Adulteration.

Under this heading, comments will be made on the following subjects :—

- (A) The Sale of Milk Regulations,
- (B) Naturally Poor Milk,
- (C) The Freezing Point Test,
- (D) Some less serious examples of Fat Deficiency,
- (E) More serious Adulteration.

(A) *The Sale of Milk Regulations.*

Milk, being a natural product, is naturally subject to certain variations in composition. From the time when its analysis became possible it has been known that unadulterated milk "straight from the cow" might be rich milk or poor milk. In view of the inherent difficulty of distinguishing between milk which had been adulterated (by watering or skimming) and milk which was naturally poor, Regulations were made in 1902 which embodied a new principle. Instead of a defendant being "innocent until he is proved guilty," a person lawfully responsible for the quality of a sample of milk is, under the Regulations, presumed to be guilty of adulteration of the milk if the sample falls below standards fixed by the Regulations, "unless the contrary is proved," i.e., unless he proves in evidence that the milk was not adulterated. The burden of proof is laid upon the defendant.

The Regulations, unaltered in principle and practically unaltered in substance, were reissued in 1939 under powers conferred by the latest Food and Drugs Act, 1938. Two important Articles are reproduced here:—

"MILK."

"1. Where a sample of milk (not being milk sold as separated, or "condensed, milk) contains less than 3 per cent. of milk-fat, it shall be "presumed for the purposes of the Food and Drugs Act, 1938, until the contrary "is proved, that the milk is not genuine, by reason of the abstraction there- "from of milk-fat, or the addition thereto of water.

"2. Where a sample of milk (not being milk sold as separated, or "condensed, milk) contains less than 8.5 per cent. of milk-solids other than "milk-fat, it shall be presumed for the purposes of the Food and Drugs Act, "1938, until the contrary is proved, that the milk is not genuine, by reason "of the abstraction therefrom of milk-solids other than milk-fat, or the "addition thereto of water."

(B) *Naturally Poor Milk.*

Where a sample falls below the limits fixed by the above Regulations it may be *presumed* that it is not genuine, and it would be possible provisionally to list every such sample as "adulterated." However, further investigations may be made, and in some cases may be compulsory. Because of the sampling procedure whereby formal samples are divided into three parts and a sealed portion is given or sent to the vendor, purveyor, or producer responsible, such a responsible person will always be aware when an official sample has been taken. It is provided that he may require the sampling officer to take as soon as possible a sample from the milk as it reaches him (if he is a retail vendor or middleman) or from the milk of a corresponding milking of the cows (if he is a producer). It follows that if the cause of the poorness of the milk is natural, those who handle it in the various stages of the distributive trade are successively exonerated from responsibility as the poor milk is traced back. The final sample from a corresponding milking of the herd of cows has become known as the "Appeal to the Cows."

In practice, sampling officers do not usually wait to be called upon to take samples with a view to tracing the source of poor milk. Their investigations may or may not lead to the conclusion that the cows are yielding naturally poor milk; and if milk from the cows is good, analysis of samples at subsequent stages of handling may be evidence leading to the conclusion that a certain person is responsible for adulterating milk.

Natural poorness of the "Appeal to the Cows" sample will logically only account for a reasonably similar degree of poorness in the sub-standard sample leading to the investigation. If the original sample was deficient in fat, obviously no logical defence would be afforded by an "Appeal to the Cows" sample which on analysis proved to be below the presumptive limit for non-fatty solids, but not below the presumptive limit for fat.

Where the question is one of fat-deficiency alone, there is no other method of establishing "natural causes" for the poorness than the comparison with the "Appeal to the Cows" sample. The skimming of milk reduces its fat content while scarcely affecting its content of non-fatty solids.

Where the question is one of deficiency of non-fatty solids, there may be other ways of demonstrating that the poorness is or is not natural. Addition of water to milk reduces the percentage of non-fatty solids (and also of fat). If any method could be devised to show that a sample of milk certainly contained water from some extraneous source, then obviously adulteration would have been thereby established independently of any "presumption" based on the Sale of Milk Regulations, and also independently of any "Appeal to the Cows" sample.

For many years, but notably in the last fifteen years or so, such a method has been available, namely, the freezing-point test. Although as stated above, the test gives independent information relating to the presence or absence of "added" water, it is most usefully treated as evidence additional to all that can be deduced from the usual analysis and from the "Appeal to the Cows."

(c) *The Freezing-Point Test.*

It has long been known that when anything is dissolved in water the solution so formed has a freezing-point lower than that of pure water. The principal constituent of genuine milk is of course water (which is present in the proportion of about 88 per cent.). The fat present in milk is in the form of minute droplets not dissolved in the water (but suspended or "floating about") and it has practically no effect on the freezing-point. The non-fatty solids of milk, however, are in the main truly dissolved in the water present, and the result is that the freezing-point of milk is lower than that of pure water. It has been established by the testing of thousands of samples of milk that the freezing-point of fresh milk of known genuineness is constant between remarkably narrow limits, and this is true whether the milk is naturally poor, or normal, or rich.

The usefulness of the test has been generally recognised, and a particularly valuable advance was the agreement by public analysts generally to adopt for the test a particular form of apparatus devised by Hortvet and called the Hortvet cryoscope. The milk is cooled under controlled conditions and the freezing-point is obtained by means of a thermometer capable of being read to one thousandth of a degree Centigrade. What is actually of importance is the *difference* between the freezing-point of the milk and that of pure water under the same conditions.

The freezing-point of fresh genuine milk as determined by the Hortvet method very frequently lies between $-0.540^{\circ}\text{C}.$ and $-0.550^{\circ}\text{C}.$ (The minus sign indicates that milk freezes at a temperature lower than pure water, which freezes at $0^{\circ}\text{C}.$). As a result of many thousands of observations it is now generally agreed that when the freezing-point (Hortvet) of a sample of milk is found to be nearer to zero than $-0.529^{\circ}\text{C}.$, it may be taken as very strong evidence that the sample contains added water. Further, the percentage of added water may be deduced quite closely by proportion. Thus for example the freezing-point of milk containing 20 per cent. of added water is about $-0.440^{\circ}\text{C}.$, while milk containing 40 per cent. of added water freezes at about $-0.330^{\circ}\text{C}.$

Because of the valuable additional information it affords, the freezing-point test is, where possible, performed upon every sample of milk found in this laboratory to contain less than 8.5 per cent. of non-fatty solids. Two general results of the application of the freezing-point test may be indicated:—

1. (Where the freezing-point indicates genuine milk). Many samples of milk (especially samples taken from milk consigned into the City by producers outside the City) are identified as unadulterated (so far as addition of water is concerned) though poor in quality. Thus milk producers are relieved of some of the burden laid upon them by the presumptions of the Sale of Milk Regulations.

2. (Where the freezing-point indicates the presence of added water). The case is strengthened against some samples where adulteration with water could have been “presumed” from the deficiency of non-fatty solids. The evidence derived from the freezing-point is not however employed in an arbitrary manner, and in practice is supported by the full procedure of “Appeal to the Cows.”

In their quarterly reports, public analysts are required by the Ministry to report “in the case of samples below the presumptive limits of the Sale of Milk Regulations, whether they were adjudged genuine by the analyst on other grounds.” Table 3 gives details of 67 samples which were accordingly adjudged genuine (apart from any deficiency in fat) on the basis of the freezing-point test. Where the fat was found to be below 3.0 per cent., the samples were deemed to be “adulterated” from the point of view of fat-deficiency, though not from the point of view of added water.

TABLE 3.

The following samples of milk showed figures for non-fatty solids below the presumptive limit of 8·5 per cent. non-fatty solids fixed by the Sale of Milk Regulations, 1939, but were adjudged genuine (apart from any deficiency in fat) on the Hortvet freezing-point test:—

Serial Number	Total solids per cent.	Fat per cent.	Non-fatty solids per cent.	Freezing point °C. (Hortvet)	Acidity °Richmond
1071C	10·59	2·25	8·34	0·545	18
613B	11·09	2·60	8·49	0·541	18
143A	11·82	3·40	8·42	0·540	16
144A	11·60	3·15	8·45	0·539	16
145A	11·07	2·75	8·32	0·536	15
146A	11·07	2·70	8·37	0·537	16
1117C	10·85	2·45	8·40	0·535	16
687B	11·92	3·55	8·37	0·545	17
203A	11·01	2·70	8·31	0·529	17
206A	11·82	3·45	8·37	0·535	17
215A	11·14	2·70	8·44	0·535	18
218A	10·29	2·20	8·09	0·539	16
219A	10·81	2·45	8·36	0·537	16
220A	10·21	2·05	8·16	0·542	15
222A	11·01	2·80	8·21	0·540	17
223A	10·75	2·55	8·20	0·540	16
224A	11·20	2·85	8·35	0·540	18
226A	11·06	2·80	8·26	0·540	16
227A	10·77	2·35	8·42	0·539	17
228A	11·06	2·60	8·46	0·540	16
229A	10·53	2·40	8·13	0·539	15
1217C	11·27	2·85	8·42	0·544	17
1238C	12·28	3·85	8·43	0·544	16
1240C	11·23	2·90	8·33	0·544	16
1241C	11·31	2·90	8·41	0·544	16
1242C	11·30	3·00	8·30	0·547	16
1243C	11·25	3·00	8·25	0·542	16
801B	12·40	4·30	8·10	0·542	16
802B	11·56	3·30	8·26	0·544	16
291A	9·87	2·00	7·87	0·530	16
292A	12·58	4·20	8·38	0·537	18
293A	12·18	4·35	7·83	0·532	16
298A	11·39	3·25	8·14	0·533	16
299A	9·77	1·80	7·97	0·530	18
301A	10·67	2·40	8·27	0·534	16
303A	12·04	3·65	8·39	0·532	16
304A	9·97	1·95	8·02	0·538	16
322A	11·15	2·70	8·45	0·542	16
1355C	10·67	2·40	8·27	0·537	15
1357C	10·80	2·35	8·45	0·546	16
1358C	11·00	2·55	8·45	0·543	16
1360C	11·44	3·10	8·34	0·540	15
1361C	11·99	3·60	8·39	0·545	16
1362C	11·20	2·80	8·40	0·548	16
1366C	10·96	2·80	8·16	0·543	15
1367C	10·92	2·75	8·17	0·546	16
607A	11·63	3·25	8·38	0·552	16
608A	11·14	2·70	8·44	0·546	16
1181B	11·13	2·90	8·23	0·536	16
742A	11·56	3·10	8·46	0·551	16
1649C	12·12	3·85	8·27	0·554	16
1651C	12·51	4·05	8·46	0·551	19
1652C	10·51	2·30	8·21	0·533	17
1654C	10·52	2·50	8·02	0·545	16
1655C	11·23	2·90	8·33	0·545	15
881A	11·33	3·35	7·98	0·529	18
882A	11·42	3·20	8·22	0·529	18
885A	11·56	3·20	8·36	0·534	16
889A	11·55	3·20	8·35	0·537	17
892A	12·22	4·00	8·22	0·535	17
893A	12·36	3·95	8·41	0·534	17
895A	12·96	4·60	8·36	0·542	20
896A	12·58	4·20	8·38	0·535	18
1901C	11·70	3·60	8·10	0·532	15
1902C	11·46	3·20	8·26	0·539	15
1945C	11·62	3·15	8·47	0·538	17
1080A	11·37	3·05	8·32	0·532	18

(D) *Some less serious examples of Fat Deficiency.*

As explained above, certain samples of milk found to contain less than 8·5 per cent. of non-fatty solids are adjudged to be genuine though naturally poor (unless they are also deficient in fat).

All the remaining samples found to be below the standards fixed by the Sale of Milk Regulations are reported as “adulterated,” and the total number of such samples for the year was 200 (of which 164 were formal, 34 were informal, and 2 private).

It should not be supposed, however, that each of these 200 samples represented an independent and separate instance of adulteration. The chief reason is that milk is very often handled in “consignments” consisting of a number of containers (now usually ten gallon milk-cans or “churns”). Each consignment as a rule consists of the daily yield of a herd of cows. It is part of the duty of a sampling officer to take samples of milk while it is “in course of delivery” from producers to dairies in the City. In sampling a consignment, a sample is taken from each milk-can and a note is made of the number of gallons of milk in the can. It nearly always happens that the percentage of fat in such a series of samples (representing all the milk-cans of a single consignment) varies widely, and frequently one or more of such samples is found to contain less than 3·0 per cent. of fat. (The first milk taken from a cow during milking, “fore-milk,” is naturally poorer in fat than the later milk. The last milk drawn from the cow is called “strippings.” It is not easy to arrange when several cows are being milked at the same time that each milk-can receives just a fair proportion of “fore-milk” and “strippings”). Each such fat-deficient sample must be recorded as “adulterated.” The seriousness of such a fat-deficiency is obviously very much less if it is found, on calculating the average, that the whole consignment taken together is of normal composition for genuine milk. In the dairies the contents of a very large number of milk-cans are usually mixed together and the quality of milk as regards fat-content becomes very much more uniform. Producers are frequently advised to take more care in “levelling” the fat-content of their different milk-cans.

Such comparatively unimportant fat-deficiencies as are described above account for 73 samples classified as “adulterated,” and are contained in 44 different consignments of satisfactory average composition.

(E) *More serious Adulteration.*

Finally it is the duty of the local authority to enforce compliance with the Food and Drugs Act., etc., by prosecution if necessary. There are some cases where it is deemed to be sufficient to issue a warning. The public analyst's responsibility is to perform the analysis, and to issue his certificate in the prescribed form. The certificate (in legally defined circumstances) can be used as evidence in the absence of the public analyst. The local authority is the

prosecutor and though the public analyst is often in practice a witness for the prosecution, he is expected to act also as an impartial expert witness. It is the custom in Manchester for him to be present at the hearing of each (Food and Drugs Act) case by the City Justices, and the defence sometimes frankly depends upon his presentation of the technical facts rather than upon the evidence of a separate analyst for the defence. Though it is intended to avoid giving the erroneous impression that the public analyst's function includes the punitive aspect of administration, nevertheless for the sake of completeness the results of legal proceedings are mentioned in some places in this report.

34 samples of adulterated milk were the subject of legal proceedings. A more complete picture of the incidence of adulteration may be obtained on considering that the 34 samples comprised:—

One single sample as sold by retail.

33 samples from producers' consignments of 2 or more cans, involving only 8 different consignments.

[The magistrates inflicted penalties in each case. Total fines imposed were £101, and defendants were ordered to pay costs totalling £22 2s. 7d.]

Strength and weakness of the present law relating to Adulteration of Milk.

To protect the consumer, the deliberate adulteration of milk (equally with that of any other food) is made a criminal offence. Where milk is below standard and the causes are "natural" (i.e., the cows yield poor milk) no effective legal action can be taken against a producer. A result of this over a number of years has been to encourage the breeding of cows for quantity rather than for quality of yield. So long as care is taken that no fat is abstracted and no water added, the product may legally be sold as milk even though it is demonstrably below the "presumptive standards."

To counteract the tendency to breed for quantity at the possible expense of quality, many have advocated that payment to milk producers should be calculated on a quality basis, so that poor milk should sell at a lower price and rich milk at a higher price according to an equitable scale. Though there are obvious difficulties in the way of introducing such a scheme at present, it is nevertheless desirable that somehow the incentive for milk-producers to concentrate on quantity rather than quality should be removed.

Adulterated samples other than Milk.

Table 4 sets out other samples of food and drugs found to be adulterated or unsatisfactory (and for the sake of completeness indicates the nature of any subsequent action). Following the table are some notes on matters of interest relating to individual samples or investigations.

TABLE 4.

Adulterated and Other Unsatisfactory Statutory Samples and Action Taken.

Informal or Private Samples							Formal Samples									
Adulterated or unsatisfactory	Cautioned	Formal samples obtained	Formal samples unobtainable	Referred to Ministry of Food	Action taken under the Unsound Food Clauses	Pending	Article	Adulterated or unsatisfactory	Cautioned	Legal Proceedings ordered	Referred to Ministry of Food	Adulteration deemed too slight for further action	Summonses	Fined	Amount of fines	Amount of costs
1	—	1	—	—	—	—	Butter	—	—	—	—	—	—	—	—	£ s. d.
3	1	1	—	—	—	—	Coffee and Chicory Essences and Extracts.. ..	1	—	—	—	1	—	—	—	—
1	1	—	—	—	—	—	Cream of Magnesia	—	—	—	—	—	—	—	—	—
1	—	—	—	1	—	—	Fish Dressing	—	—	—	—	—	—	—	—	—
1	—	1	—	—	—	—	Fruit Curd—Lemon	1	—	1	—	—	1	1	0	1 1 0
2	1	—	1	—	—	—	Gin	—	—	—	—	—	—	—	—	—
—	—	—	—	1	—	—	Lemonade Powder	—	—	—	—	—	—	—	—	—
1	—	—	—	—	—	—	Lentils	2	2	—	—	—	—	—	—	—
—	—	—	—	—	—	1	Medicated Sweets	—	—	—	—	—	—	—	—	—
4	—	—	—	—	4	—	Milk Evaporated, Condensed, or Sweetened.. ..	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Oil of Eucalyptus.. .. .	2	—	2	—	—	2	2	0 0	—
—	—	—	—	—	—	—	Sago.. .. .	1	1	—	1	—	—	—	—	—
1	—	—	1	—	—	—	Sausages	1	1	—	—	—	—	—	—	—
—	—	3	—	—	—	—	Spirit of Sal Volatile	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	Tincture of Iodine	2	2	—	—	—	—	—	—	—

Some Notes on Particular Cases of Adulteration or Irregularity.

Butter (informal, arising from complaint). This sample was found on analysis to contain margarine estimated at 5 per cent. A formal sample was therefore requested, and was found to be genuine butter.

Coffee and Chicory Essence (informal). The label declared a permitted amount of benzoic acid in a form differing from that prescribed by the Preservatives Regulations.

[The packer was cautioned].

Coffee Extract, Dry (informal and formal, arising from complaint). Tins containing this powdered product bore labels indicating that the extract was entirely soluble. A user complained that it contained fine grounds, and in fact informal samples were found to contain 6.2 per cent. and 6.3 per cent. respectively of water-insoluble matter consisting of fine coffee-grounds. A formal sample of the same maker's product was, however, found to contain only 1.4 per cent. of water-insoluble matter and this sample appeared to be satisfactory in use. It was accordingly deemed inadvisable to take further action.

Condensed Milk, Canned Sweetened (informal, arising from complaints). Three samples, one previously opened and two opened in the laboratory, were found to have a faint "fishy" taint (presumably of bacterial origin). The samples were otherwise of normal composition. The samples were reported as unpalatable and unsuitable for consumption, and the matter was referred for action under the "unsound food" clauses of the Food and Drugs Act.

Condensed Milk, Canned Unsweetened (informal). On opening the can in the laboratory the contents were found to be clotted and to have a sour odour. The acidity was abnormally high (80° Richmond). The sample was reported as "unfit for human consumption" and the matter was referred for further action under the "unsound food" clauses of the Food and Drugs Act.

Fish Dressing (informal). This was a pre-packed article whose label failed to indicate its composition (as required by the Labelling of Food Order). The composition of the sample (dried bread crumbs) was normal.

[The matter of labelling was referred to the Ministry of Food.]

Fruit Curd (informal and formal). These samples contained respectively only 56.5 per cent. and 57.9 per cent. of soluble solids and thus failed to comply with the standard for soluble solids (for practical purposes, sugar) fixed by the Food Standards (Preserves) Order. The product was imported in closed containers, and because of the low sugar percentage the contents deteriorated on opening. It appeared subsequently that the makers had been informed about the more recent requirements (standards for fat, citric acid, oil of lemon, and eggs came into force in October, 1949), but had failed to take account of the older but still effective requirement dating from 1944, namely 65 per cent. of soluble solids.

[The vendor was in possession of a warranty, and the Bench penalised the importer].

Gin (informal, arising from complaint). A sample was found to have only half the alcoholic strength of an ordinary gin of 35° under proof. On investigation of this case it was found impossible to obtain a formal sample.

Lemonade Powder (informal). The "tin" container of a foam powder bore a statement of ingredients, mainly true, but omitting to mention sodium bicarbonate of which 4.2 per cent. was found in the sample. The most likely cause of the omission was thought to be oversight.

Another product put up in a paper bag with a sucker was found to have a composition different from that declared on the bag, namely "sugar, glucose, citric acid, calcium phosphate, flavouring, colouring." On analysis the ingredients were found to be (in order of percentage) sugar, flour, citric acid, sodium bicarbonate, flavouring, and colouring. Ordinary uncooked flour accounted for 30 per cent. of the powder, and was regarded as a mere filler or make-weight. No formal sample could be obtained.

Lentils (formal). Two samples having on the whole a clean appearance were found to contain small stones of about the same size as lentils, in the respective proportions of 0.36 per cent. and 0.55 per cent. The former sample contained a few brown rounded objects (of pin-head size) which were found to consist of abdominal portions of some kind of hard-backed beetle (resembling *Ptinus Tectus*).

[Warnings were issued].

Sago (formal). This sample consisted of small pellets of the size normal for "fine sago." Some of the pellets were found to consist of sago starch and others of tapioca starch. The sample contained at least 20 per cent. tapioca. Sago and tapioca are sometimes (wrongly) taken to be synonymous. The true description of the sample should have been stated.

[The packer was notified].

Sausages (formal). A sample failed to comply with the standard of 50 per cent. meat then in force under the Meat Products etc. Order. (The Order disregarded any deficiency until the meat content fell below $47\frac{1}{2}$ per cent.) The sample was found to contain 43 per cent. of meat.

[A warning was issued].

Sausage (private). A sample was found to contain only 30 per cent. of meat and a certificate of adulteration was issued. (At that time sausages should have contained 50 per cent. meat.) The purchaser refused to take legal action on the private sample and appeared unwilling to co-operate further. In the circumstances, sampling officers attempted to obtain an independent formal sample but were unable to do so.

Cream of Magnesia (informal). This sample was found to contain 4 parts per million of arsenic (as As_2O_3) which is in excess of the limit for arsenic (namely 1 part per million as As_2O_3) fixed for this article by the British Pharmacopœia.

[A warning was issued].

Oil of Eucalyptus (formal). Two separate unrelated samples purchased in pharmacists' shops were found to contain respectively only 47 per cent. and 60 per cent. of cineole, whereas the British Pharmacopœia requires 70 per cent. cineole. No evidence of added adulterants was forthcoming from the analysis, and presumably the articles were simply second-quality or commercial eucalyptus oils.

[Both defendants stated that they had purchased the oils as B.P. Oil of Eucalyptus and had sold them in good faith. One defendant unsuccessfully pleaded warranty. The Justices inflicted penalties in both cases].

Spirit of Sal Volatile (informal). Three samples sold in small bottles on different occasions were found to have the composition of Aromatic Solution of Ammonia B.P.C. (which is almost devoid of alcohol but otherwise resembles Spirit of Sal Volatile B.P.). Sampling officers found practical difficulty in procuring sufficient material for a formal sample from the few small bottles on sale. A formal sample from a large bottle in the same shop was genuine.

Tincture of Iodine (formal). Below are tabulated the requirements of the present British Pharmacopœia and of its predecessor, and the composition of two samples :—

	B.P. 1932	B.P. 1948	First sample	Second sample
Iodine percentage	2·5	2·5	2·5	2·5
Potassium Iodide percentage . .	1·5	2·5	1·5	1·94

The first sample was probably old stock and the second may have been a mixture of old and new stock.

[The two vendors were warned that they should comply with the Pharmacopœia at present in force].

Ice Cream.

With a view to preparing the ground for fixing a standard for the composition of ice cream, the Ministry of Food requested that the fat content of every sample examined should be reported to them.

During the period under review an extra allowance of fat and sugar was allocated to ice cream makers on their undertaking to produce ice cream with a minimum fat content of $2\frac{1}{2}$ per cent.

72 samples were examined during the year. All (except one sample which was submitted as a water ice) contained more than $2\frac{1}{2}$ per cent. of fat (while the water ice contained 1·2 per cent.). In each case the fat was tested for the presence of mineral oil (and/or soft paraffin) with negative results. The average fat content of the 72 samples was 8·6 per cent.

Fat in Ice Cream

<i>Percentage of Fat</i>	<i>Number of Samples</i>
2·5 to 4·9	8
5·0 to 7·4	17
7·5 to 9·9	25
10·0 to 12·4	16
12·5 and over	5

Drinking Water.

Chemical analysis of drinking water in this laboratory is primarily concerned with the health aspect, as distinct from the service aspect. Routine samples are received from different districts of the City. Following the receipt of complaints in the Health Department, samples are taken and the nature of the complaint is indicated on the label. Such samples are examined where possible with special reference to the complaint.

Most of the samples of course represent supplies from the Manchester Corporation Waterworks, but a few represent drinking water from other sources such as wells and springs. Usually bacteriological samples are also taken, at the same points and within a few minutes, for submission to the Regional Public Health Laboratory. Facts and findings of mutual interest are exchanged between the bacteriological and the public analyst's laboratories.

Out of 36 samples examined, 18 were submitted as a result of various complaints concerning, for example, discoloration, sediment, chlorinous taste, and the presence of "insects." In 4 cases the complaint was justified by the result of analysis, and in 7 cases the results slightly supported the complaint. In other cases, having regard to the nature of the supply, samples were considered to be wholesome from the chemical point of view.

Lead in Domestic Hot-Water Supplies.

In view of certain opinions given through the press that there may be danger of harmful amounts of lead in domestic hot water if such water is used for filling the kettle for the "morning cup of tea," tests were made on hot water from seven different houses in Manchester. It was arranged that hot water should be present in the domestic hot-water cylinder overnight; and in the morning, one of the hot taps (before any hot water had been used for any other purpose) was allowed to run to waste just long enough for the water to "run warm," then the sample was taken (thus representing water which might have been used for filling the kettle). As far as possible the metals used in the construction of the domestic hot-water system were noted. The samples of water were examined for lead with the results given in Table 5.

Where lead service pipes are in use, lead is of course never entirely absent from the water which has flowed through them. It is fairly generally accepted in this country that a reasonable maximum permissible limit for lead in drinking-water from house taps may be taken as 0.5 parts of lead (as Pb) per million.

It may therefore be concluded that these tests have not supported the view that harmful amounts of lead are present in hot tap water. There may, however, be other considerations which render it inadvisable to *recommend* that water from hot-water taps should be used for drinking, as for example the possibility of extraneous dirt entering the supply-cistern.

TABLE 5.

Table of Results (Lead in Domestic Hot-Water Supplies).

District	Metals used in hot-water installation							Lead (as Pb) parts per millions in sample of hot water
	Rising main	Cold- water supply cistern	Boiler	Hot-water cylinder	Immersion heater	Circulating pipes, boiler to cylinder	Hot-water supply pipes to tap	
Fallowfield	L	ZI	C	C	H	L	L	0.2
Crumpsall	L	—	C	C	H	—	L	0.3
Higher Crumpsall ..	L	—	—	C	H	C	C	0.1
Rusholme	L	ZI	I	C		L	L	0.2
Withington	C (L entering house)	ZI	C	C		C (short length L)	C	0.1
Kingsway	—	ZI	I	C		L	L	0.4
Levenshulme	—	I	C	C	H	L	L	0.4

— indicates inaccessible or not noted.

L indicates lead.

I indicates iron.

ZI indicates galvanised iron (= zinc-coated iron).

C indicates copper.

H indicates immersion heater in cylinder.

Rag Flock.

Although a new Act regulating the sale of materials used in upholstery and bedding has been under consideration for some time, the Rag Flock Act of 1911 is still in force. The standard for cleanliness laid down under this Act is, that rag flock shall not contain more than 30 parts per hundred thousand of soluble chlorine in the form of chlorides.

During the year, 50 samples have been examined of which 3 samples exceeded the above limit. These samples contained respectively 90, 230, and 53 parts of soluble chlorine per hundred thousand. In the case of these 3 samples legal proceedings followed.

[1 case was dismissed, and in the other 2 cases penalties were imposed.]

The average chlorine figure for the remaining 47 samples amounted to 14 parts per hundred thousand.

Chemical Examinations for H.M. Coroner.

The Coroners (Amendment) Act, 1926, empowers the Coroner to request any person whom he considers to possess special qualifications, to make a special examination by way of analysis of such parts or contents of the body or such other substances as ought to be submitted to analysis.

At the request of the Manchester City Coroner, human organs or their contents, together in some cases with other related exhibits, have been examined in connection with inquests on 8 persons, involving the analysis of some 27 specimens.

Significant amounts of poisons were found in 3 cases (namely veronal, seconal, strychnine) and in one case the finding of altered blood in the stomach was of some value in explaining post-mortem abnormality. In other cases the negative results of the analysis were of importance.

A Buxton case involved the estimation and identification of veronal in a specimen of urine.

Samples Submitted by Various Sections of the Health Department.

(a) Investigation of food poisoning, outbreaks or individual cases. Possibility of irritant chemical substances in food as cause of poisoning was eliminated by analysis of samples, including :—

1 milk, 1 sweet spread (substitute for honey), 1 fried fish, 1 fried potatoes, 1 cooked peas, 2 frying fats.

(b) Investigation of complaints. Minute metallic pellets found in fried fish were identified as solder. Black particles in potato-cakes were not mouse-excreta.

(c) Water percolating into basements, etc., tests in connection with salting of drains, raw stream-water for contamination with chemical poisons, etc. 5 full analyses and 11 tests for salt, etc., have been made.

(d) A sample of concretion from a land-drain was examined.

Samples Submitted by other Corporation Departments.

(a) Parks Department. 3 informal samples of fertilisers were examined, and were found to be substantially in agreement with the respective declarations of composition.

(b) Weights and Measures Department. 2 samples, consisting of a motor fuel and a solvent, were identified for the purposes of the Petroleum Act which governs the storage of certain inflammable liquids.

(c) City Police. 6 samples of motor fuel from private cars were tested for "red petrol" in the earlier part of the year before the end of petrol rationing.

(d) Markets Department. A sample of imported canned red cherries was found to contain a small but objectionable amount of sulphuretted hydrogen of unknown origin.

(e) Education Department. A slightly discoloured meat-pie was found to contain a small quantity of copper.

Samples from Other Sources.

(a) Port of Manchester Health Authority. 25 samples of imported foodstuffs have been examined, in most cases for compliance with the Preservatives Regulations or for the presence of metallic impurities. A few of the samples were submitted for more complete analysis, or for special investigation.

(b) Ministry of Town and Country Planning. 2 samples of borehole water from the Congleton site were submitted to a special examination.

(c) Hospital. A sample of Syrup of Figs B.P.C., unsatisfactory in use, was found to differ somewhat from the B.P.C. formula.

(d) Regional Public Health Laboratory. Oil-waste emulsion was examined for phenols, and tomatoes for spray contamination.

(e) A private sample of a dispensed medicine was found to agree with the prescription. (The sample was included as a genuine sample under the Food and Drugs Act.) The prescription, written many years ago, was a nerve-sedative-cum-tonic and included bromides. The medicine was used privately by a patient in addition to other treatment by a doctor. On two occasions a dose of the medicine appeared to be the cause of alarming symptoms (probably "bromism" caused by the taking of bromides under medical treatment and also in the medicine examined).

Measurement of Atmospheric Pollution.

Atmospheric Deposit Gauges.

At 7 points in the Manchester area, atmospheric deposit gauges have been installed to collect the rain and all other matter deposited from the air for subsequent measurement and analysis. An eighth similar gauge has been installed for comparison outside the City at Handforth in Cheshire.

On the first day of every month a member of the laboratory staff goes to each point to collect the vessel containing the rain water, together with all other matter deposited from the air. The water from each gauge is measured on arrival at the laboratory, and subsequently submitted to a lengthy examination for deposited impurities.

Lead Peroxide Instruments.

In addition to the above, at three of the points lead-peroxide instruments have also been installed. The function of these is to provide information on the amount of sulphur dioxide gas in the air. Lead-peroxide cylinders after exposure for one month are brought into the laboratory for examination. The amount of sulphate formed upon the cylinder gives a measure for the sulphur pollution.

Volumetric Apparatus for Sulphur Dioxide and Smoke.

External air is continuously drawn through an apparatus installed in the laboratory and the number of cubic feet passing each 24 hours is read from a meter.

The solid particles derived from the smoke are trapped on a paper, the darkening of which gives a daily measure of smoke pollution.

The sulphur dioxide present is subsequently absorbed chemically and a daily determination of this is also made.

Daily averages of smoke and sulphur dioxide at Rusholme for the year are given in Table 6.

TABLE 6.
VOLUMETRIC APPARATUS FOR SULPHUR DIOXIDE AND SMOKE.
Rusholme.

	Sulphur dioxide		Smoke	
	Parts per million		Milligrams per cubic metre	
	1950	1949	1950	1949
January.. .. .	0·164	0·199	0·353	0·262
February	0·118	0·205	0·264	0·211
March	0·116	0·237	0·289	0·279
April	0·082	0·147	0·277	0·164
May	0·073	0·144	0·200	0·186
June	0·043	0·121	0·115	0·136
July	0·047	0·110	0·152	0·112
August	0·035	0·084	0·180	0·169
September	0·052	0·096	0·275	0·162
October	0·078	0·074	0·315	0·236
November	0·165	0·145	0·525	0·237
December	0·211	0·125	0·567	0·236
Average daily figure over all year..	0·10	0·14	0·29	0·20

The highest daily figures were obtained on November 27th, during a spell of thick fog. The sulphur dioxide content amounted to 0·632 parts per million and the smoke to 2·205 milligrams per cubic metre.

In 1949, the highest figures for sulphur dioxide and smoke were obtained on February 5th and amounted to 0·415 parts per million and 1·041 milligrams per cubic metre respectively.

**MANCHESTER AND DISTRICT REGIONAL
SMOKE ABATEMENT COMMITTEE.**

**By the Honorary Secretary, C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law.**

The Manchester and District Regional Smoke Abatement Committee comprises 82 local authorities in South Lancashire and North Cheshire, covering an area within 15 miles radius of the City of Manchester. The Committee acts in an advisory and technical capacity in connection with all forms of atmospheric pollution and works in close co-operation with other Regional Smoke Abatement Committees and Councils in the country. It is also a member of the National Smoke Abatement Society, which is a voluntary organisation of industrial concerns, local authorities and private individuals and carries on smoke abatement propaganda over a national field.

Two additional local authorities became members of the Manchester and District Regional Smoke Abatement Committee during 1950.

A meeting of the full Committee was held in Manchester Town Hall in August, 1950. Councillor T. M. Larrad, J.P. (Manchester C.B.) was appointed Chairman, and Alderman S. T. Marron, J.P. (Oldham C.B.), Deputy Chairman of the Committee for the year 1950/51. Authority was given for the organisation of a joint meeting of Regional Smoke Abatement Committees to be held in Sheffield during 1951. Other matters discussed at the meeting included qualifications of Smoke Inspectors, investigation of atmospheric pollution, the emission of sulphur dioxide from chimneys of power stations, and burning spoil heaps.

The Committee's work on the investigation of atmospheric pollution was continued and further extended during 1950. Observations commenced in August, 1948, were continued on behalf of local authorities in the Carrington-Partington area. A summary of observations on atmospheric sulphur by the lead peroxide method accompanies this report and gives summer, winter, and yearly means since the start of the observations. Statistical tests have been applied to the figures to determine significance, and this is indicated in the summary. It is concluded that there have not been any overall changes in atmospheric pollution in the area of any significance.

Observations on deposited matter by the use of deposit gauges at six sites have also been continued, but insufficient information is so far available to form the substance of a report. It is intended to report on this matter when five years' results are available. During the period of observation, however, there have been no differences in results per deposit gauge which would suggest any major change in the rate of emission of pollution in the area.

At the request of a large engineering firm in Trafford Park, an experimental lead peroxide apparatus was installed during October, 1950, at one of the firm's works, where lead peroxide apparatus is already in operation normally. The experimental apparatus is only put into use during the hours of 7-30 a.m. to 5 p.m. on Monday to Friday each week. It is intended to conduct further experiments with this apparatus by making it directional, and estimating pollution during night time and at week-ends.

Further progress was made with a second joint scheme for the investigation of atmospheric pollution in South Lancashire and East Cheshire in which 17 local authorities are participating. This scheme involves the installation of 32 lead peroxide apparatuses and various sites were visited with a view to placing the posts and cylinders required.

Work has proceeded during 1950 in connection with the investigation of the effects of pollution on the growth of plants, which, as mentioned in the 1949 report, is being conducted by Manchester University Department of Botany in conjunction with Manchester and District Regional Smoke Abatement Committee.

Two special greenhouses were completed in June, 1950, at the University's Experimental Grounds, Fallowfield, Manchester. Greenhouse No. 1 was designed to study the growth of plants in existing polluted air, whilst greenhouse No. 2 was used for experiments on plants grown in "scrubbed" air. A series of experiments were conducted in these greenhouses in order to check the differences in leaf number and dry weights of plants, due to atmospheric pollution.

Other pilot experiments were arranged to produce information and a technique leading to field trials which it is intended to commence during 1951.

The Committee afforded facilities during November, 1950, for a member of the research staff of St. Bartholomew's Hospital, London, for the estimation of radio-activity in samples of dust-laden Manchester air. This work was undertaken in connection with research on lung cancer and was sponsored by the Medical Research Council.

The Manchester and District Regional Smoke Abatement Committee has maintained close contact with the Department of Scientific and Industrial Research as regards the investigation of atmospheric pollution and is represented on the Standing Conference of Co-operating Bodies.

1. OBSERVATIONS OF SULPHUR DIOXIDE IN CARRINGTON AREA.
Sulphur dioxide expressed as mg. SO₃/day/100cm² Batch A PbO₂ (cowl cover).
S₅ = mean results May–September.
W₅ = mean results November–March
Y₁₂ = yearly mean.
“ D ” denotes significant decrease compared with previous year.
“ I ” denotes significant increase compared with previous year.

	1948–49			1949–50			1950–51		
	S5	W5	Y12	S5	W5	Y12	S5	W5	Y12
BUCKLOW R.D.—									
Carrington, Ackers Farm	—	—	—	—	1·70	—	0·91	2·07 I	1·48
Carrington, Moss Hall Farm	—	—	—	—	1·90	—	1·24	2·16 I	1·66
Dunham Massey, Green Lane Farm ..	—	—	—	—	1·55	—	0·88	1·73	1·28
Partington, Gas Works	—	5·09	—	2·85	4·19 D	3·39	2·18 D	5·08 I	3·57
Warburton, Bent Farm	—	—	—	—	1·39	—	0·87	1·63 I	1·20
ECCLES M.B.—									
Barton Airport	—	—	—	1·51	2·32	1·92	1·24 D	2·71	1·93
IRLAM U.D.—									
Irlam, Princeess Park	—	—	—	1·24	2·35	1·87	1·15	2·66	1·89
Irlam, Railway View Farm	—	—	—	1·12	2·02	1·56	0·85 D	2·24	1·53
Irlam, Sewage Works	—	—	—	1·25	1·76	1·47	1·04 D	2·06 I	1·53
Cadishead, Woodside Farm	—	—	—	0·80	1·38	1·05	0·70 D	1·59 I	1·12
SALE M.B.—									
Grammar School	—	—	—	1·17	2·20	1·62	0·90 D	2·58 I	1·70
Highways Depot	—	2·43	—	1·15	2·22	1·64	0·92 D	2·44	1·68
Sewage Works	—	2·49	—	1·15	2·08 D	1·34	0·97 D	2·38 I	1·64 I
STRETFORD M.B.—									
Victoria Park	—	—	—	1·35	2·58	1·95	1·17 D	3·03 I	2·08
Metrovick, West Works	—	—	—	—	—	—	4·65	5·58	5·16
Metrovick, Mosley Road Works	—	—	—	—	—	—	7·51	8·53	8·13
URMSTON U.D.—									
Bowfell Road	—	2·47	—	1·34	2·08 D	1·67	1·11 D	2·47 I	1·77
Irlam Road	—	2·08	—	0·92	1·81 D	1·33	0·79 D	2·00	1·38
Davyhulme Sewage Works.. .. .	—	—	—	1·77	3·01	2·31	1·42 D	3·23	2·30
Westbourne Park	—	3·11	—	1·48	2·71 D	2·05	1·22 D	2·78	1·98
Barton Power Station.. .. .	—	—	—	3·44	2·78	3·06	1·71 D	3·45 I	2·56 D
Total signifieant increases or decreases	—	—	—	—	5 D	—	14 D	11 I	1 I 1 D

Wind direction and mean temperature—

Period	No. of occasions from :		Mean Temperature °F.
	Arc N–SE	Arc NW–S	
Winter, 1948/49	141	439	42.2
do. 1949/50	137	420	42.3
do. 1950/51	184	374	37.8
Summer, 1949	171	388	59.8
do. 1950	126	457	57.2
Year 1949/50	360	1,005	50.6
do. 1950/51	368	1,005	47.4

PREVENTION OF DAMAGE BY PESTS ACT, 1949.

By G. H. Adcock, Cert. R.S.I.,

Rodent Executive Officer.

General Account of Administration.

The functions of the local authority under the above Act are administered by the Rodent Executive Officer and staff from premises in Joddrell Street, Manchester, 3. (Telephone DEA 2361/2.)

During the past year there has been a change in the legislation affecting rodent control. The Rats and Mice (Destruction) Act, 1919, has been repealed by the Prevention of Damage by Pests Act, 1949, which came into force on the 31st day of March, 1950. The provisions of the Infestation Order, 1943, are now included in this new Act.

The Act enlarges the powers of the authorities, and provides them with the means of obtaining a great improvement in the work necessary for the control of rats and mice.

The primary obligation is now placed upon the local authority to ensure that, as far as practicable, the area under its control is kept free from rats and mice, and it is laid down in the Act that the occupier of any land shall give to the local authority forthwith notice in writing if it comes to his knowledge that rats or mice are living on or resorting to the land in substantial numbers, with modification respecting agricultural land.

In order to fulfil this obligation a continuous and systematic survey or search is carried out by the staff. The notices now required of individual occupiers are intended to ensure that co-ordinated and effective action can be taken to the satisfaction of the local authority, and are of great assistance in providing evidence which may lead to the source of the trouble.

The occupier still has the right to carry out destructive measures against rats and mice on his premises. In these cases advice is given, and supervision is maintained by revisits from the operational staff.

In order to maintain some basis for determining what constitutes a "substantial" number, regard must be given to certain factors such as size and position of the premises, class of business carried on, causes contributing to infestation, degree and duration of infestation, attraction in premises and in the vicinity.

It therefore becomes necessary to record the infestations under different classifications, and for this purpose these are "minor," "major" and "reservoir."

The classification refers to numbers of rats and not to the density of rat population to any particular premises. A larger or major number of rats can be found in small premises, but if the same number of rats migrate to adjoining premises, covering a larger area, the infestation of the several separate premises may be of minor character.

The term "land" includes land covered with water and any building or part of a building.

If, in the case of any land, it appears to the local authority, whether in consequence of a notice given in respect of the land by the occupier, or otherwise, that steps should be taken for the destruction of rats or mice on the land or otherwise for keeping the land free from rats and mice, they may serve on the owner or occupier a notice requiring him to take, in such reasonable period as may be specified in the notice, such reasonable steps for the purpose aforesaid as may be specified, and where the owner of the land is not also the occupier, separate notices may be served on the owner and on the occupier.

The notice may in particular require—

- (1) The application to the land of any form of treatment, specified in the notice.
- (2) The carrying out on the land of any structural repairs or other works so specified.

There is an appeal to a court of jurisdiction against certain notices served requiring the carrying out of any structural works, but there is no appeal against a notice served which requires the application to the land of any treatment for the destruction of rats and mice.

In this City the organisation set up to deal with all phases of rodent control, except maintenance treatment of sewers, which is carried out by a special staff of the City Surveyor's Department, has the approval of the Ministry, and works in close harmony with the Divisional Rodent Officer and his staff. The Ministry also places great value on the meetings of the Regional Consultative and Workable Area meetings which meet at regular intervals to discuss all problems connected with rodent control, and which give officers in charge of this work the opportunity of meeting technical officers from headquarters staff at London.

The policy of the section is still to try and locate the source of rat infestation. This is quoted in the sense of a permanent source, i.e. where a breakdown in the private drainage system, or the presence of some disused drain or sewer, or public and private sewer defect, is suspected. The disused sewers or drains may be found in close proximity to the infested building or actually in the building. Defects in such sewers or drains allow the egress of rats to the surface and buildings in the vicinity are entered by way of structural defects. The location of these defects is no easy matter, as it requires a long experience and knowledge of the habits of rats to work out by a process of elimination the right spot.

This class of work may involve excavating in cellars, yards, private passages and gardens, and as the owner can now be called upon to do this work, it should not be undertaken without careful consideration since a negative result will cause much dissatisfaction.

Property owners and agents in this City are very co-operative and are ready to do their part in this work. They do not want rats and mice in their property and realise that they are a menace to the property and a discomfort to their tenants.

Consequently it has not been found necessary so far to serve any notices under the new Act and the policy of persuasion and co-operation has proved satisfactory. It is necessary, however, in odd cases, to have the drainage system examined under the statutes of the Public Health Act, 1936, where different owners are concerned. Owners also assist in carrying out proofing measures where rats have gained access to premises under short doors, or by means of broken or missing basement or cellar windows, broken floor space ventilators, etc.

The Department's service is now widely known, and requests are made to carry out measures against rats several times a year, but not on contract, as a means of ensuring that premises are kept free from rats, and as the work is done on a test bait basis the cost is not too great. Conversely, some occupiers expect the premises to be cleared after one operation, and sometimes query any further cost for a follow-up treatment.

It should be noted that there can be no guarantee to clear premises with one operation. In many cases there is a lack of co-operation in the proper protection of food scraps, wrappings and canteen waste, but matters are generally put right when the necessary procedure is explained.

It is becoming more difficult to deal with very old dwelling-house property in the City. This is mainly due to boarded and bricked-up derelict property with disused cellars being adjacent to occupied property. Similarly, proximity to sites where demolitions have taken place and where the drainage system has not been disconnected from the public sewer often causes infestation. Proper supervision should be exercised at demolitions in order to minimise the risk of infestation.

Other sources of infestation are soil pipes and ventilating shafts, particularly sewer ventilators fixed on private property. Rats can and do climb up these pipes. The only means to prevent rats obtaining access to the roof and under the eaves of the roof is by a wire cage or cowl fixed on the top length which terminates just above the eaves, and sometimes below. These cages or cowls decay through weather conditions and it would help to prevent infestation if the top length of soil pipe or ventilator shaft could be cast with a proper dome-shaped grid.

The prolific breeding habits of the rat may prevent complete extermination, but continuous control measures are able to reduce their uneconomic depredation to a minimum. The rat should be classed as Public Enemy Number One, and the slogan should be, "If you can kill a rat to-day don't wait until to-morrow."

Rats in relation to disease and food.

Food poisoning may be caused by rats and mice as they harbour bacteria which may be transmitted to man and so cause illness. The contamination of food may occur in the home, in shops and in large storage depots. Raw foods contaminated by rat or mouse excreta, or cooked foods not efficiently protected, may be responsible for an outbreak of food poisoning.

Complaints.

The Rodent Control Section is now widely known in the City and it is pleasing to note that both owners and occupiers now report the presence of rodents on their premises. Every complaint, no matter how trivial, is investigated. The trivial complaints are mostly associated with mice, but conversely it is amazing to see the degree of infestation which has taken place in some premises without any steps being taken by the occupier to deal with it or to report it to the local authority. Once an infestation is reported it is often mistakenly thought that the Corporation has a legal duty to effect a clearance. This class of complaint affords an opportunity to explain preventive measures to occupiers with advice on food protection and hygiene and a maintenance of a standard of cleanliness in the home. It must be stated here that the Corporation carry out destruction, on charge or free of cost, according to the financial circumstances of the householder, but in all cases of business premises a full charge is made.

It is quite a different matter with rat infestation because it is necessary to locate the source if at all possible. This necessitates a thorough inspection, particularly of the drainage system, and also adjacent premises and the area in which infestation occurs. Vital matters like dry street surface water traps or broken traps may be the cause of infestation in the area, and once rats find egress from sewers and drains and enter premises they are followed by many more. A breeding colony is then set up and is limited only by the capacity of the place to supply their needs in harbourage, food and water ; when this fails a spread-out to other premises takes place and further infestations occur. Infestations should, therefore, be attended to before this state of affairs is reached.

The following table indicates the total number of new complaints dealt with by this section during 1950, and the conditions found at all premises visited as a result of these complaints :—

**Premises Visited in Connection with Complaints, and
Infestation Conditions Found.**

Total number of new complaints dealt with, 1950	1,820
---	----	----	----	----	-------

Premises Visited.

Number of business premises visited in connection with complaints..	..	..	..	..	1,845
Number of dwelling-houses visited in connection with complaints ..	..	..	..	..	3,759

Total number of premises visited	5,604
----------------------------------	----	----	----	----	----	----	-------

Conditions Found.

Number of premises found rat-infested	..	..	..	..	..	..	1,222
Number of premises found mouse-infested	900

Total number of premises found infested by rodents	2,122
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Total premises revealing no visible evidence of infestation at time of inspection	3,482
--	----	----	----	----	----	----	----	----	----	----	-------

The infestations of rats are classified in their respective categories, which are based on the visible evidence at the time of inspection. This evidence consists of smears, droppings, grawing marks, footmarks, runways, damage to food and materials, undermining to surfaces, burrows and scrapes, and from this a general picture and rough estimate of the size of the infestation can be obtained on a rat population basis.

Infestations may be internal or external. Some external infestations, caused by a breakdown in the drainage system in close proximity to the premises, are the cause of many internal infestations, particularly where burrowing takes place under the footings of dwelling-houses to floor spaces, and even under flagged floors of sculleries and kitchens. Rats are attracted to any good harbourage where food and water are readily available and where the particular spot is inaccessible to cats or dogs. These include low-built wooden garages, poultry houses where the floor is not raised two feet from ground level, garden sheds, etc. Rats will not remain where food, water and good harbourage is denied them.

Mice infestations present a different problem, particularly in dwelling-houses. They climb well, making use of all sorts of domestic drapings, table cloths, curtains, legs of furniture, etc., and find harbourage behind skirting boards, cupboards and other permanent fixtures. They raid stocks of household food in larders and on shelves and food left on tables, the latter especially where all members of the family go out to work. They destroy clothing and household fabrics stored in drawers and use the spoils for nesting purposes. Where these conditions are found it is a good indication that the occupier has not taken any steps to deal with the infestation. No large scale or "major" infestation of rats has been reported during the year and it can be said that the rodent population in the City is being kept under control.

Classification of premises visited in response to complaints during 1950.

Premises Rat-infested						Premises Mouse-Infested		Premises showing no Visible Evidence of Infestation	
Internal		External		Category		Business Premises	Dwelling-Houses	Business Premises	Dwelling-Houses
Business Premises	Dwelling-Houses	Business Premises	Dwelling-Houses	Major	Minor				
483	311	81	347	—	1,222	337	563	944	2,538
1,222						900		3,482	
5,604 (Total premises)									

Nature of Premises Infested.

From the following table it will be seen that dwelling-houses constitute the largest single group of infested premises.

311 dwelling-houses were found to be infested internally and 347 externally by rats, while 563 dwelling-houses were infested by mice. No tangible reason can be given for this state of affairs in so far as rats are concerned, but a supporting factor may be that a large proportion of the dwellings are in the industrial parts of the City and, due to the exigencies of the present times, with the difficulties of effecting repairs, serious dilapidation and structural defects develop, giving access to rats from various sources. Such premises may be classed as beyond economic repair as nothing less than a complete rebuilding, or, better still, a demolition, would meet the case. This, of course, is impossible, due to housing shortage but a constant control must be maintained over this type of property. The difficulty is enhanced where there are many children in the household, as no matter how carefully the operations are carried out, there is always the danger of children getting hold of poison bait.

Shops and premises where food is prepared, stored or sold, form the next group of infested premises. The storage of food, either in bulk or small quantities, is still a problem except where premises are absolutely rat-proof, or where adequate protection against rodents is obtained by routine maintenance.

Factories and workshops form a group where the careless disposal of waste food and food wrappings attracts rodents, more so in the older types of business premises, where complete proofing is unattainable. Talks on this subject have been given to many employers, and it is hoped some improvement will result. It may be noted, however, that rodents are sometimes brought into the premises in packages, sacks of foodstuffs and other materials.

The different types of infested premises are given in the following table :—

Nature of Premises Infested.

Type of Premises	Number Rat-Infested		Number Mouse-Infested	No Evidence of Infestation	Totals
	Internal	External			
Dwelling-houses	311	347	563	2,538	3,759
Factories, workshops, workplaces ..	108	14	95	90	307
Shops	152	12	74	248	486
Premises where food is prepared, sold, or stored	58	8	42	207	315
Warehouses	28	18	16	136	198
Offices	26	—	60	140	226
Restaurants, licensed premises, etc...	47	6	10	12	75
Hospitals, welfare centres, clubs, public institutions.. .. .	18	5	16	20	59
Schools	2	—	14	10	26
Churches, etc.	2	1	8	4	15
Garages, wooden structures	20	10	—	48	78
Farms, tips, brooks	7	—	—	19	26
Parks, sports grounds, airports	7	2	—	4	13
Sewage disposal works, slaughter-houses	5	5	—	—	10
Cinemas, theatres	3	—	2	6	11
Totals	794	428	900	3,482	5,604

Causes of Infestation.

It has been previously pointed out that the location of the source of infestation is very important and should be established if at all possible. Many undisclosed objects such as unsealed water-closets, untrapped rainwater pipe drains, stoppers missing from the rodding arm of intercepting traps, water-closets with the pedestal removed and the rest bend of the W.C. drain left open, may be the cause, and these are found in derelict and bricked-up property. In such cases rats originate in the public sewer, which may be classed as a “reservoir” source. Here they live and breed, particularly in dead ends and disused sewers, living on edible scraps from kitchen waste, grease of all descriptions, etc. This also applies to disused drains of many kinds. Rats emerge from the sewer, which they use as a means of passage, and burrow into nearby premises, undermining surfaces whereby they obtain egress to the surface and infest premises in the vicinity through structural defects.

It is very helpful, and fortunate, that regular maintenance treatments of the sewers are carried out. These keep the rat population well under control.

The following table classifies the causes of infestation :—

Classification of Causes of Rat Infestation in Premises

Primarily Visited during 1950.

Cause	Rat-Infestation				Total Premises Rat- Infested	Percentage of Total Rat- Infestation	Premises Mouse- Infested
	Internal		External				
	Business Premises	Dwelling- houses	Business Premises	Dwelling- houses			
Directly due to or associated with defective or disused drains, sewers	56	82	18	122	278	22.75	—
Nature of business in premises or vicinity	104	19	6	3	132	10.80	240
Tips, refuse dumps, market areas ..	58	21	10	12	101	8.26	42
Neglect in protecting food scraps, poultry kept	90	53	6	31	180	14.73	285
Dilapidated premises, defects in structure	72	18	6	9	105	8.59	220
Building operations, demolitions ..	23	31	8	45	107	8.76	20
Vicinity of open or culverted water- courses, railway sidings	47	27	16	61	151	12.36	75
Dilapidations on war-damaged sites	10	2	3	10	25	2.05	18
Casual infestation	23	58	8	54	143	11.70	—
Totals	483	311	81	347	1,222	100.00	900

When undermining or upward burrowing is found it is a good indication that there is something below the surface to account for it. It is therefore necessary to trace the burrowing or undermining to its source, which is not necessarily at the point of indication. In these cases some sewer or drain defect or, alternatively, some type of disused sewer or drain, may be looked for and which, until located and dealt with, remains a source of infestation to premises in the vicinity. It is pleasing to note that in this City the co-operation of the City Surveyor's Department is always at the disposal of the section, and in the case of private premises, owners and agents are always ready and willing to fulfil their responsibility. Some of the City's sewers are very old and constructed in different ways, according to age. There are those with brickwork in bad condition, flag and brick ; socketed pipes, and butt pipes, while some of the small disused sewers may be just a small dimension brick tunnel, connected to the working sewer under basements of business premises, with no indication as to which working sewer they are connected. It may be taking a risk to disconnect this type of defect, owing to possible seeping and flooding. Many classes of defects are found which, when remedied, clear up local infestation.

The following table analyses drainage conditions found and action taken:—

Tracing of Rat Burrows in relation to Drainage Infestation.

Conditions found and action taken as a result of 153 Examinations as follows:	By City Engineer	By Owners and Occupiers	By Drainage and Sanitary Sections	Totals
Number of examinations made	103	32	18	153
Defective sewers reconstructed by Highways Department	—	—	—	—
Minor defects in sewers repaired	47	—	—	47
Disused privy midden drains removed	7	—	12	19
Other disused drains removed or otherwise dealt with	21	7	9	37
Defective drains remedied by owners and dealt with by Sanitary Section	—	10	20	30
Outward rat burrows consolidated	18	—	—	18
Surface rat burrows consolidated	10	17	—	27
Undermining due to causes other than rats ..	8	—	—	8
Defective sewers and drains repaired by Corporation at owner's expense	6	—	8	14
Street drain inlets repaired	7	—	—	7
Totals	124	34	49	207

Rodent Control Survey.

The local authority has a duty to perform by taking such steps as may be necessary to secure, as far as practicable, that the area in their district is kept free from rats and mice. Apart from complaints from the public notifying the presence of rats or mice, it is necessary to continue with the survey of the area to discover infestations. Appropriate action is then taken, either by destruction measures or advice to occupiers and owners as to the best method suited to the particular infestation, following the technique laid down by the Ministry. It will be realised that many slight infestations of mice are discovered of which occupiers are unaware until brought to their notice. In terraced houses the co-operation of all the occupants is enlisted and in special circumstances free treatments are carried out by this department. In order that the infestation should be cleared up as soon as possible, periodical revisits are made to check results and to give further advice if necessary. These periodical revisits have the effect of keeping occupiers keyed up to their responsibilities and is conducive to maintaining a large measure of control over infestations.

It can be stated that the “reservoir” and “major” types of infestation have practically disappeared.

The following table compares figures of premises found rat-infested on re-survey with premises rat-infested on last survey.

Ward	Premises Surveyed (Total)	Premises Rat-infested on last Survey	Premises Rat-infested on Re-survey, 1950	
			Business Premises	Dwelling- houses
Didsbury	870	10	—	—
Gorton North	1,315	10	—	—
Levenshulme	5,510	10	2	—
Longsight	6,708	12	3	4
Medlock Street	4,098	25	—	1
Miles Platting	4,321	8	—	—
Moss Side East	4,050	12	—	—
Moston	7,245	15	—	1
Openshaw	4,890	30	—	—
Oxford	3,050	78	6	—
Rusholme	6,078	2	—	—
St. Ann's	2,840	18	2	—
St. George's	4,750	12	—	—
St. John's	4,076	42	5	2
St. Luke's	5,030	12	—	4
St. Mark's	4,702	28	—	—
Withington	2,105	4	—	—
Totals	71,638	328	18	12

Destruction Measures by Corporation Service.

Measures of destruction are carried out by the Corporation Service and the materials used and the technique employed are in accordance with those approved by the Ministry, namely pre-baiting, poison baiting and post-baiting. Rats are very suspicious of anything new in their surroundings and, consequently, they have to be enticed to eat and are even well fed over a period of several days. It is at these well fed points that, later, it is intended to destroy them. This is pre-baiting, which induces confidence by removing suspicion, with the result that poison bait is readily accepted and destruction achieved.

Post-baiting is carried out two weeks after poison baiting and gives a check on the success of the operation as well as finding out whether any young rats are on the move from the time of pre-baiting to poison baiting. In many cases, particularly in cafes and other places where tempting varieties of food are present, it is sometimes found necessary to alter the base bait to a food they readily eat, but the same poison is used. After a rest period, however, the particular base bait and poison bait must be altered or varied to remove poison prejudice.

Business premises must pay the full cost for the Corporation Service, but for dwelling-houses the charge is optional unless it is deemed that the occupier is able to pay the cost or a proportion of it.

Refuse tips, places of refuse destruction, local authority public service property, etc., are periodically inspected and the necessary measures carried out. It is not possible to use potent poisons in all classes of premises, particularly dwelling-houses where there are young children or domestic pets, as there is no safeguard that it will not be touched. The management in business premises are warned not to remove or tamper with any substance put down for rodent destruction. It is known, however, that workpeople do remove the bait put down, in order to carry out their own destruction measures at home. This risk has to be taken, but the department cannot accept any responsibility for absence of supervision by managements or other occupiers.

The following table summarises the destruction measures carried out by the Corporation Service.

During 1950, 1,742 treatments were carried out.

1,633 of these were carried out by means of poison ;

36 by a combination of poisoning and trapping ;

39 by trapping alone ;

4 by gassing.

The following figures indicate the number of premises treated and the number cleared of rats and mice :—

Type of Premises	Number Rat-infested	Number Mouse- infested	Number of Premises cleared of	
			Rats	Mice
Local Authority properties	57	157	23	60
Business premises	559	599	223	230
Dwelling-houses	137	233	54	89
Totals	753	989	300	379
	1,742		679	

It will be seen that of 1,742 premises treated, 679 were cleared of rodents.

In the course of operations 160,087 baits were laid.

32,413 of these were poison baits, of which 16,367 (50.5 per cent.) were taken.

Number of dead rats picked up 1,154

Number of dead mice picked up 2,124

Estimated kill (Ministry calculation) 29,898

753 premises were treated for rat infestation, of which 300 (39.8 per cent.) were subsequently cleared.

989 premises were treated for mouse infestation, of which 379 (38.3 per cent.) were subsequently cleared.

Destruction Measures by Private Operating Companies.

Questionnaires are sent out to known private operating companies and other individuals who undertake rodent destruction on a contract basis at the request of owners and occupiers. It is not always known at what premises this work is being done, except on a survey, when this work is supervised and advice given.

Private companies are not concerned with the clearing of premises or establishing a source of infestation and seeking a remedy, but only with the routine baiting of premises, relying upon the effectiveness of some form of poison or virus used at intervals over a contracted period. No returns, therefore, are available of premises cleared of rodents.

One operating company reports having laid 196,000 rat baits and 810,000 mouse baits, all poison baits, but there is no record of the number of baits taken, number of dead rodents picked up, estimate of kill or premises cleared of rodents.

Another private company reports having laid 8,750 poison baits with 1,500 poison baits being taken, and in this case a kill of 98 rats and 424 mice is reported. It is known that several itinerant operators carry out destruction measures in the City; their work is unsatisfactory, and as a rule is followed up by the Corporation Service. One in particular is a casual visitor, and it is amazing that hard-headed business men will part with money for such a useless service.

It is obvious that a complete picture of rodent destruction in the City cannot be obtained, owing to the lack of information from these sources, and also to the fact that many occupiers choose to carry out their own destruction measures and cannot be expected to report their success to the Department.

-All these efforts in the field of rodent destruction by occupiers and the large amount of poison baiting by operating companies is, however, a material contribution of great value and renders considerable assistance in maintaining a standard of rodent control in the City.

Destruction Measures by other Corporation Departments and Nationalised Undertakings.

Maintenance treatments are carried out in the public service properties of the Corporation, and, apart from these, nationalised undertakings co-operate in efforts to control infestation. Generating stations, gas works, refuse destruction yards and sewage disposal works are always liable to become re-infested. The management of these properties are advised to destroy the odd rat, consequently measures are carried out in such properties which have the effect of minimising breeding and assisting in keeping the infestations under control.

From various departments and nationalised undertakings it is reported that 541 rats and 169 mice were destroyed during 1950, either by trapping or by a combination of poisoning and trapping, 588 poison baits being laid.

Revisits.

It is found necessary to pay frequent visits to premises where infestations have been discovered and where suitable measures have been carried out to deal with the trouble, in order to check the efficiency of the operations. In many cases further treatment is found necessary, and in this way infestations can be promptly dealt with. Further advice regarding proofing measures is given when it has not been done efficiently, and in the case of dwelling-houses where slight infestations of mice are reported, revisits are paid in order to see the results. These are continued until such time as there is no visible evidence of infestation.

During the year the total number of revisits to infested premises by the operators was 3,633.

In addition to the operations carried out by the Corporation Service, many occupiers desire to carry out their own destruction measures, after suitable advice is given, resulting in a clearance of the particular infestation.

Extermination of Rats in Public Sewers.

This work is carried out by a special staff of the City Surveyor's Department, who undertake a baiting routine of sewer manholes in the City. The procedure entailed in this work is laid down by the Ministry. The necessary data required by the Ministry is supplied by the City Surveyor's Department, and the following table shows that this side of rodent control is receiving proper and adequate attention. Sewer maintenance treatments are very necessary, as part of the scheme of control measures, otherwise there is no doubt that many more cases of burrowing and undermining would take place from this "reservoir" source of infestation.

Treatment	Number of manholes test-baited	Number of Manholes baited	Number of manholes showing takes
Balance of initial treatment No. 2 ..	—	247	46
No. 1 Maintenance treatment ..	1,721	8,060	1,301
No. 2 Maintenance treatment ..	—	3,897	618
Totals	1,721	12,204	1,965

Since the Act came into force on the 31st day of March, 1950, it has not been found necessary to serve any statutory notices. Owners and occupiers are very ready and willing to co-operate in this work of rodent destruction. Nobody desires the presence of rodents in their premises, particularly rats or the resultant damage to goods, food and property, and the bad psychological effect on work-people and occupants of dwelling-houses.

The type of property within the City boundary over which rodent control has to be exercised is analysed as follows :—

Classes of Property	Number
1. Lane used as canal and other canal hereditaments	9
2. Docks and other dock hereditaments	16
3. Mines, quarries and brickworks	15
4. Steel, iron and engineering works, etc.	152
5. Cotton mills, etc.	34
6. Mills (other than cotton), factories and workshops.. .. .	4,031
7. Breweries, distilleries and bottling stores	38
8. Property occupied by the Crown.. .. .	415
9. Public utility undertakings hereditaments	96
10. Cemeteries and burial grounds	22
11. Sewage works and sewage farms	7
12. Warehouses and warerooms	2,915
13. Licensed houses	1,516
14. Land (including " sports " land)	223
15. Dwelling-houses	190,970
16. Houses and shops	10,902
17. Shops	4,233
18. Offices.. .. .	6,339
19. Banks	200
20. Municipal schools	150
21. Hereditaments occupied by Manchester Corporation (excluding properties in classes 9, 10, 11, 20, 33, 36 and 37)	172
22. Cinemas and theatres	96
23. Private hotels	31
24. Restaurants and cafes (unlicensed)	133
25. Garages (commercial), petrol filling stations and car parks	370
26. Lock-up garages	3,663
27. Advertising stations and signs	597
28. Markets	275
29. Social clubs, community halls, billiards saloons and dance halls	219
30. Teachers' training colleges	4
31. Hospitals, clinics, nursing homes, etc.	32
32. Swimming pools	3
33. Libraries, museums, art galleries, etc.	36
34. Universities	20
35. Technical colleges	2
36. Public wash-houses and baths	25
37. Town halls and municipal offices	40
38. All other classes of property not included above	6,036
Total	234,037

Purely agricultural and horticultural property consists of 44 smallholdings on two estates and 5,493 allotments.

MILK CONTROL SECTION.

The amount of milk consumed daily in the City has been estimated at 95,000 to 100,000 gallons. It is further estimated that 98 to 99 per cent. of this milk is subjected to the process of pasteurisation or sterilisation prior to delivery to the consumer.

The measures taken to control the City's milk are mainly by the taking of milk samples by three Milk Control Inspectors for bacteriological and biological examination (see Table 2) and by the regular inspection of dairies, apparatus, equipment, and methods of distribution, etc.

City Dairies.

Particular attention is directed to the general cleanliness of dairy premises and, on the whole, the standard has been maintained at a high level.

The inspection and checking of the plants at the licensed pasteurising and sterilising establishments in the City has been carried out at least once monthly, in addition to routine visits.

Few breaches of the Milk and Dairies Regulations, sufficient to warrant legal action, have been discovered during the year.

City and "Outside the City" Milk Producers.

23 samples of raw milk from City milk producers and 32 samples from "Outside the City" producers were examined by the biological test for tubercle bacilli. 3 of the City producers' samples proved positive as also did 3 of the samples taken from "Outside the City" producers, giving a total incidence rate of 10.9 per cent., as against 4.5 per cent. the previous year. The Ministry of Agriculture and Fisheries were notified of these positive results with a request that a veterinary inspection be carried out at the farms concerned. As a result, 4 cows suffering from tuberculosis of the udder were discovered and slaughtered under the Tuberculosis Order.

In addition to the above, the Ministry's Inspectors, in their routine visits to the City's farms, discovered 2 cows suffering from tuberculosis of the udder and 2 showing tubercle bacilli in the sputum. These animals also were dealt with under the Tuberculosis Order.

Although a large percentage of the above producers' milk goes direct from the farm to pasteurising establishments in the City for processing, it is disturbing to know that some of the infected milk was being retailed to the public in its raw state.

32 graded milks and 28 ungraded milk samples of the above producers' milk were also submitted for bacteriological examination. 24 or 75 per cent. of the graded milk samples were satisfactory, whilst of the ungraded milk samples, 19 or 69.9 per cent. were satisfactory.

Milk Supply to Hospitals and Schools.

The policy of frequent examination of samples of pasteurised milk supplied to various hospitals and schools in the City has been carried out as before and the results have been quite satisfactory both as regards quality, cleanliness, and freedom from tuberculous infection.

The raw milk supplied to the Langho Epileptic Colony and Booth Hall Hospital from the herd at the Langho Colony farms has been good throughout the year. On no occasion was the milk found to contain tubercle bacilli.

The Senior Milk Control Inspector has paid monthly visits to Oakwood Farm, Styal, which supplies Styal Cottage Homes with its milk and samples of the milk have been taken for examination with satisfactory results. On no occasion was the milk found to contain tubercle bacilli.

Milk Sampling on behalf of the Ministry of Food.

The sampling of pasteurised, Tuberculin Tested (pasteurised), and sterilised milk in course of distribution has been carried out by the Milk Control Inspectors on behalf of the Ministry of Food. The results have been extremely good; of the 605 samples taken, 594 or 98·2 per cent. satisfied the prescribed tests, viz. :—the phosphatase test for efficiency of heat treatment and the $\frac{1}{2}$ -hr. methylene blue test for keeping quality.

General.

Very few complaints were received from the public regarding unsatisfactory milk supply. These were investigated and appropriate action taken.

No epidemic of infectious disease attributable to milk has arisen during the year.

Ice Cream.

The number of premises registered for the manufacture and/or sale of ice cream continues to increase, there now being 1,465 such premises on the register. The increase is confined mainly to shops from which ice cream is sold in sealed packets only.

During the year 364 new applications for registration were received of which 2 were refused.

Set out in detail, the premises are registered as follows :—

Manufacture for sale (Heat-treated method)	..	..	..	..	85
Manufacture for sale (" Cold Mix " method)	..	..	..	..	75
Sale (in " loose " form)	..	..	..	..	444
Sale (in " wrapped " form)	..	..	..	..	861
Total	..	..	..	..	<u>1,465</u>

Regular visits of inspection have been made to ice cream premises and the general standard of cleanliness has been good. In no instance was it found necessary to institute legal proceedings in respect of dirty premises or equipment, etc., although a number of warnings was required.

At the request of the Parks and Cemeteries Department, Sunday visits were paid to the City parks during the summer months by the Milk Control Inspectors and samples of ice cream were taken from ice cream vendors and submitted for bacteriological examination and chemical analysis. The results were quite satisfactory.

It is noteworthy that there have been no cases of infection reported to the department during the year which could be traced to ice cream consumption.

TABLE 1.

Milk (Special Designations) Regulations, 1949.

LICENCES ISSUED DURING THE YEAR.

Dealer's Licence to use the designation :

“ *Pasteurised* ”

(a) Pasteurising establishments	14
(b) Other dairies and bottled milk shops	1,431	

“ Sterilised ”

(a) Sterilising establishments	6
(b) Other dairies and bottled milk shops	1,747

“ *Tuberculin Tested (Pasteurised)* ”

(a) Pasteurising establishments	..	..	..	..	..	..	7
(b) Other dairies and bottled milk shops	..	..	..	..	..	..	142

“ Tuberculin Tested ”

Dairies and bottled milk shops 45

Supplementary Licences to use the designation :

[illegible]

Bacteriological and Biological Examination of Pasteurised, Sterilised, and Raw Milks.

TABLE 2.

Place of Collection of Sample	BACTERIOLOGICAL, &c., EXAMINATION OFFICIAL TEST (Sample to pass a Phosphatase Test and ½-hour Methylene Blue Test)					BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI				
	No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Positive		Negative	
		No.	Percentage	No.	Percentage		No.	Percentage	No.	Percentage
Pasteurising plant at dairy	98	96	98·0	2	2·0	14	—	—	14	100·0
Hospitals	123	122	99·2	1	0·8	60	—	—	60	100·0
Schools	84	81	96·4	3	3·6	29	—	—	29	100·0
On road during distribution	398	391	98·2	7	1·8	50	—	—	50	100·0
Totals	703	690	98·2	13	1·8	153	—	—	153	100·0

(2) RAW UNTREATED MILK.

Place of Collection of Sample	BACTERIOLOGICAL EXAMINATION											BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI			
	GRADED MILK (TUBERCULIN TESTED AND ACCREDITED (sold as such))					UNGRADED MILK*									
	OFFICIAL TEST (sample to pass a Methylene Blue Test)														
	No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Positive		Negative	
		No.	Per- centage	No.	Per- centage		No.	Per- centage	No.	Per- centage		No.	Per- centage	No.	Per- centage
City Producer-Retailers	14	11	78.6	3	21.4	12	8	66.7	4	33.3	23	3	13.0	20	87.0
Corporation Farms	16	15	93.7	1	6.3	—	—	—	—	—	17	—	—	17	100.0
Hospitals (supplied by Corporation Farms)	14	11	78.6	3	21.4	—	—	—	—	—	12	—	—	12	100.0
Mixed farmers from “tipping tanks” at pasteurising establishments ..	1	1	100.0	—	—	19	3	15.8	16	84.2	5	1	20.0	4	80.0
On road during distribution	3	2	66.7	1	33.3	16	2	40.0	3	60.0	9	2	22.2	7	77.8
Individual country farms (on arrival at City Dairies)	18	13	72.2	5	27.8	16	11	68.7	5	31.3	32	3	9.4	29	90.6
Totals	66	53	80.3	13	19.7	52	24	46.2	28	53.8	98	9	9.2	89	90.8

* There is no legal bacteriological standard for raw ungraded milk. For purposes of comparison, however, the same test as that applicable to Graded Milks has been adopted.

REPORT FROM MARKETS DEPARTMENT ON SUPERVISION OF MEAT AND OTHER FOODS.

The Medical Officer of Health is indebted to the General Manager of the Markets Department for the following particulars relating to the operations of the department during the year ended 31st March, 1950.

The number of animals slaughtered at the city abattoir during certain years is shown in subjoined statement "A."

The bulk of the meat, fish, and fruit which is condemned is found to be unfit for food on arrival at the markets, railway stations, and wholesale houses. An efficient system of inspection at the centre of distribution lessens the risk of diseased meat, etc., being exposed for sale in retail shops.

The staff of inspectors comprises 1 chief veterinary inspector, 3 assistant veterinary inspectors, and 10 meat, fish, etc., inspectors.

Statement "B" shows the total condemnations in the city and statement "C" the total weight of meat condemned at the city abattoir and wholesale meat market.

Statement "A."

Animals Slaughtered at City Abattoir during certain Years.

Year ended 31st March	Cattle	Sheep and Lambs	Calves	Pigs	Goats
1941	50,998	323,382	32,745	28,230	—
1942	34,206	134,936	17,822	5,163	—
1943	38,127	188,523	41,752	2,404	—
1944	39,951	171,076	29,181	1,512	—
1945	42,927	172,276	18,305	1,477	—
1946	61,387	168,152	34,881	1,705	—
1947	64,061	233,675	46,701	1,385	—
1948	75,051	179,350	34,246	752	—
1949	58,645	208,725	39,447	2,659	1,223
1950	72,449	209,048	44,170	3,058	2,674

Statement " B."

Total Condemnation of various Foodstuffs during 1940-50.

Kind of Food	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Meat	622	423 ³ / ₄	547	542	697	774 ¹ / ₄	821	852 ¹ / ₂	808	978
Fish	79 ³ / ₄	176 ³ / ₄	163 ³ / ₄	112 ¹ / ₄	183	168 ¹ / ₂	190	387 ¹ / ₄	284	316 ³ / ₄
Fruit	122 ¹ / ₂	19	18 ¹ / ₄	15 ¹ / ₂	28 ³ / ₄	10 ¹ / ₄	26 ¹ / ₂	144 ¹ / ₂	80	136
Vegetables	323 ¹ / ₂	313 ³ / ₄	183 ³ / ₄	100	366 ¹ / ₂	206	127	326 ¹ / ₂	131 ¹ / ₄	162 ¹ / ₂
Eggs (number) ..	47,201	49,299	575	1,200	120	718	384	946	40	640
Game (head) ..	1,340	607	976	165	728	1,079	223	156	524	1,835
Poultry (head) ..	12,574	10,350	8,102	5,756	8,429	3,855	5,129	2,812	6,465	15,043
Rabbits (head) ..	27,420	22,145	7,923	5,116	6,704	1,079	3,363	2,217	1,731	11,040

Statement " C."

Meat Condemned at the City Abattoir and Wholesale Meat Market.

Particulars	Year ended	
	31st March, 1949	31st March, 1950
Total weight of meat condemned at the city abattoir and wholesale meat market	Tons 788	Tons 951 ¹ / ₄
Of which the weight of dressed meat consigned from places other than the city was	20 ¹ / ₄	10
Included in which were imported offals amounting to ..	¹ / ₄ ton	70 lbs.

Unwholesome Food Condemned.

Kind of Food	Year ended	
	31st March, 1949	31st March, 1950
MEAT :—	lbs.	lbs.
Beef	1,714,764	2,100,723
Mutton	36,323	18,150
Veal	27,069	28,782
Horseflesh	2,068	—
Pork	26,225	39,708
Imported offal	648	70
Goatflesh.. .. .	3,041	3,136
	1,810,138 = 808 tons	2,190,569 = 978 tons
FISH :—	lbs.	lbs.
Fish	584,047	654,613
Shellfish	52,047	55,163
	636,094 = 284 tons	709,776 = 316½ tons
GAME	head 524	head 1,835
POULTRY.. .. .	6,465	15,043
RABBITS	1,731	11,040
FRUIT	lbs. 179,161 = 80 tons	lbs. 304,460 = 136 tons
VEGETABLES	294,949 = 131½ tons	363,960 = 162½ tons
MISCELLANEOUS :—	No.	No.
Eggs	40	640
Evaporated, condensed and other canned Milks..	lbs. 12,896	lbs. 14,398
Sundry Provisions	102,802	144,564

With the exception of the following, which were seized while deposited or exposed for sale, the quantities given in the preceding tables were surrendered after being condemned by inspectors of the department :—

Kind of Food	Year ended	
	31st March, 1949	31st March, 1950
Poultry	Head —	Head 4
Fish	lbs. 1	lbs. —
Fruit	29	—
Sundry provisions.	717	188
Rabbits	2	—

NOTE.—The term “ surrendered ” includes cases in which inspectors have discovered unwholesome food in the course of their duty, but in which, owing to the salesman’s acceptance of the inspector’s decision, it has been deemed unnecessary to obtain a magistrate’s order prior to destruction.

Carcases—Inspection and Condemnation.

Year ended December, 1950.

	Number killed and inspected					
	Cattle		Calves	Sheep and Lambs	Pigs	Goats
	Except Cows	Cows				
At City Abattoir	61,342	21,819	52,205	227,159	4,789	1,059
Brought into City after killing and inspected	9,693		241	14,067	7,440	Nil

Whole carcasses condemned—all diseases except tuberculosis

At City Abattoir	40	657	314	147	42
Brought into City after killing	13	4	2	5	Nil

Carcases of which some part or organ was condemned—all diseases except tuberculosis

At City Abattoir	7,853	154	1,232	1,847	131
Brought into City after killing	359	Nil	2	21	Nil

Percentage of the number inspected affected with disease other than tuberculosis

At City Abattoir	9.5	1.6	.7	41.3	16.3
Brought into City after killing	3.8	1.7	.3	.03	Nil

Tuberculosis only.*Whole carcasses condemned*

At City Abattoir	126	1,137	175	Nil	24	Nil
Brought into City after killing	1		Nil	Nil	Nil	Nil

Carcases of which some part or organ was condemned

At City Abattoir	3,535	3,570	34	Nil	635	Nil
Brought into City after killing	2		Nil	Nil	1	Nil

Percentage of the number inspected affected with tuberculosis

At City Abattoir	6.0	44.5	.4	Nil	13.8	Nil
Brought into City after killing .. ..	.03		Nil	Nil	.01	Nil

NOTE.—Carcases brought into the City, having been inspected at place of slaughter, the incidence of condemnations bears no relation to condemnations of country-dressed meat prior to 1940 when control by Ministry of Food was commenced. There is no meat marketing scheme under Part III of the Public Health (Meat) Regulations, 1924, in force in the City.

HOUSING SURVEY SECTION.

By Albert E. Beaumont, Senior Housing Inspector.

STAFF.

Senior Housing Inspector.

Assistant Senior Housing Inspector.

8 Housing Inspectors.

6 clerks and typists.

At present there is a deficiency of 5 Housing Inspectors and 1 typist.

Seven temporary visitors are engaged on work in connection with the overcrowding provisions of the Housing Act, 1936.

Clearance Areas and Individual Unfit Houses Housing Act, 1936.

Sections 25 and 11.

The operation of Clearance Area work is still limited by the Ministry of Health's Circular 1866 (Postponement of Works Order).

In the Clearance Areas confirmed by the Ministry but not completed, there is one dwelling-house in the Miles Platting area, one in the Broom Lane area, and 7 dwelling-houses in the New Cross area yet to be demolished.

There are 9 Clearance Areas awaiting confirmation by the Ministry of Health. From these areas 93 dwelling-houses have been vacated during the year and 103 families moved, of which 90 were rehoused by the Corporation; the remaining 13 families found their own accommodation. 84 houses in these areas have been demolished. There remain 3,216 houses to be demolished and 3,295 families to be rehoused.

The St. John's Clearance Area was inspected and evidence prepared for representation when the Postponement of Works Order prevented further action. This area contained 615 houses in which there were 671 families. Owing to war damage and removals from time to time, there are now in the area only 393 dwelling-houses to be vacated containing 485 families, and 440 houses to be demolished. During the year 7 of the houses were demolished as a result of action under Section 11 and a further 3 at present vacated, and 1 occupied, have yet to be demolished under the same section of the Housing Act. During the year 4 families were moved from 4 dwelling-houses.

In advance of the Ministry's confirmation it has been necessary during the year because of dangerous conditions in the areas represented but awaiting confirmation, to deal with 92 houses as individual unfit houses under Section 11. In addition, similar action was taken in regard to 259 houses not in Clearance Areas. 43 families found their own accommodation and in 337 cases it was provided by the Corporation. Up to date, 1,590 houses have been demolished, whilst 16 have been bricked up to prevent access and to act as protection to adjoining houses which might be imperilled by their demolition. There are 188 houses scheduled as individual unfit houses yet to be demolished.

During the year 2 houses in confirmed Clearance Areas and 335 houses, of which 84 were in Clearance Areas not yet confirmed by the Ministry, were demolished.

The number of families displaced during the year under Clearance Orders and Demolition Orders totalled 389, of which 340 were rehoused by the Corporation and 49 found their own accommodation. There are in all 3,834 families yet to be rehoused from properties represented as unfit under these orders.

Details in respect of the figures quoted will be found in the accompanying table.

Abatement of Overcrowding.

Housing Act, 1936. Section 58, etc.

During the year the survey of the overcrowding position was continued by the special temporary staff retained for this work, their records for the year show 344 new cases of overcrowding and 220 cases where the overcrowding has been abated, making the total number of overcrowded cases 1,792, compared with 1,668 cases at the end of 1949.

The attention of the Director of Housing has been drawn to these cases with a view to priority of consideration in rehousing.

An analysis of the present position is as follows :—

Overcrowded houses—	Families	Adults	Children
1,238 containing 1 family	1,238	7,453	2,405
432 „ 2 families	864	3,038	875
105 „ 3 „	315	759	203
17 „ 4 „	68	210	76
<hr/> 1,792	<hr/> 2,485	<hr/> 11,460	<hr/> 3,559

Abatement of Overcrowding during 1950.

	Families	Adults	Children
From privately-owned houses :—			
Rehoused by Corporation	112	545	205
To privately-owned houses	74	285	109
By reduction in family	18	69	5
From Corporation houses :—			
Rehoused by Corporation	7	14	5
To privately-owned houses	5	19	8
By reduction in family	4	15	4
<hr/> Total abated during 1950	<hr/> 220	<hr/> 947	<hr/> 336

These figures show that there are 1,238 families occupying houses too small for them and 554 houses overcrowded by lodger families. Of the 220 cases of overcrowding abated, 119 of them were rehoused by the Corporation.

The following table is set out in the form required by the Ministry of Health :—

(a)	(i)	Dwellings overcrowded at the end of 1950	1,792
	(ii)	Families dwelling therein	2,485
	(iii)	Persons dwelling therein	15,019
(b)		New cases of overcrowding notified during the year ..	344
(c)	(i)	Cases of overcrowding relieved during 1950	220
	(ii)	Persons concerned in such cases	1,283
(d)		Particulars of any cases in which dwelling-houses have again become overcrowded after the local authority have taken steps for the abatement of overcrowding	Nil

Eradication of Vermin, etc.

Public Health Act, 1936. Sections 83—85.

(A) *Vermin-infested premises* (Public Health Act, 1936. Section 83).

During the year 1,044 complaints of bug infestation were received, of which 5 applied to business premises and 1,039 to dwelling-houses. 821 of the complaints came from the tenants of Corporation houses. 749 of these were treated with a D.D.T. solution, the remaining 72 are being dealt with or will be dealt with early in the new year. 218 of the complaints applied to private houses, 4 of which were treated with H.C.N., 29 with D.D.T., and the remaining 185 by the tenants. The latter cases showed light infestation and received insecticidal spraying and washing applied in accordance with methods advised by the Housing Inspectors.

Four business premises were fumigated with H.C.N. and one by insecticidal spraying.

In December a fumigation was carried out which was the largest ever undertaken in the City and possessed some unusual features.

The fumigation was for the elimination of a species of moth (*Ephestia elutella*) which attacks tobacco. The stock affected belonged to a large tobacco firm and was stored in a bonded warehouse situated in the yard of a railway goods station. The store room, on the second (top) floor of the warehouse, was approximately 295 ft. long by 107 ft. wide. On the first floor was a similar room, but a portion at one end was partitioned off and in use as offices by the railway authority, whilst the remainder of the floor was vacant. The ground floor consisted of a goods shed containing 3 sets of railway lines and platforms with wide openings in the side walls through which vehicles in the yard outside were loaded.

A firm with a considerable experience of the fumigation of ships and of tobacco was employed by the owners to carry out the work.

Several weeks were spent in preparatory work by the firms concerned in making the store gas-tight, erecting a partition across one end of the room to secure a "risk area" to comply with the regulations (on the matter being raised by this Department) and in arranging the stock,

It was arranged for the fumigation to take place during the Christmas holidays when the employees would be away, as it has been found that tobacco requires to be under a full concentration of the gas for 72 hours to ensure success. Accordingly the fumigation was commenced at 2 a.m. on Saturday, December 23rd, successive boosts of cyanide were given on December 24th and 25th to replace possible losses through absorption, etc., and on December 26th at 10-30 a.m. the ventilation of the premises commenced. The capacity of the "fumigation area" was in the region of 450,000 cubic feet.

To accomplish a satisfactory distribution of the cyanide, it was discharged through 60 atomisers arranged about the room which were connected by means of piping to cylinders of liquid cyanide. Six trained fumigators working in pairs were on the work. Throughout, frequent chemical tests had to be taken in the vicinity of the store and periodic observations had also to be taken in the goods yard and the streets surrounding.

Owing to absorption of the cyanide by the moisture in the tobacco it was not possible for a freedom certificate to be issued for the "fumigation area" till 22 days after the ventilation of the room commenced.

(B) *Furniture and Effects* (Public Health Act, 1936, Section 84).

Contracts are placed each year with a removal contractor and a fumigator so that tenants removing from a vermin-infested house to a Corporation house or privately owned house can have their furniture fumigated with H.C.N. before transfer to the new house.

The cost is met by the Corporation when the removals are effected from Clearance Areas and individual unfit houses. Tenants from overcrowded houses are requested to pay 40s. towards the cost of removal. Other tenants moving from one private house to another pay the full removal cost. In all cases the fumigation is carried out by the contractor at Monsall Disinfecting Station at the expense of the local authority in accordance with Section 84.

The removals effected during the year are as follows :—

To Corporation houses	Families	Persons
From individual unfit houses (93 of which were in Clearance Areas) ..	340	1,330
From overcrowded houses	62	471
From dangerous buildings not represented	3	12
	405	1,813

In addition 3 loads of furniture were fumigated at the request of tenants moving from one private house to another.

There were no requests for the fumigation of bedding or mattresses apart from furniture.

73 adults and 66 children availed themselves of the facilities to attend Monsall Disinfecting Station to have their personal clothing cleansed whilst their furniture was being fumigated. Where tenants did not take advantage of this service the bedding van called at their new address on the morning after the removal to collect their personal clothing for disinfection.

Applications for rehousing on grounds of ill-health.

1,948 cases of this nature were considered during the year. The conditions under which the family is living are taken into account, together with any medical evidence in support of the claim. Where substantiated a medical category of priority is awarded and the Director of Housing notified accordingly. Forty-seven per cent. of the claims submitted warranted a degree of priority.

"Share your Homes" Scheme.

23 applications for the registration of rooms under the scheme were investigated ; 16 of these were registered, 3 were not approved, and 4 were withdrawn. The total number registered to date is 188.

Billeting of Workers.

No applications were received for the billeting of workers coming to the City for employment.

Temporary Staff.

The duties required under Section 57 (2) of the Housing Act, 1936, in respect of the abatement of overcrowding, involve not only visiting houses scheduled as overcrowded but also to ascertain any additional overcrowding existing. To carry out this work a systematic survey of the City is being carried out by the staff of 7 temporary employees retained for the purpose, 5 of whom carry out the investigations and 2 are employed on recording and statistics. During the year details in respect of families living in 32,342 houses visited by this staff have been recorded, making a total since the survey commenced of 121,543 houses visited and occupied by 406,325 people.

Approximately 78,000 houses have yet to be visited. These are situated in the southern areas of the City, a large proportion being Corporation houses,

Clearance Areas—Progress Report, 1933-1950.

Area	Number of Houses in Area	Houses Vacated		Balance Outstanding to be Vacated	Houses Demolished		Balance Outstanding to be Demolished	Number of Families in Area	Families Moved to Dec., 1949			Families Moved during 1950			Balance Outstanding Families to be Moved
		Total to Dec., 1949	During 1950		Total to Dec., 1949	During 1950			By Corporation	Own Account	Total	By Corporation	Own Account	Total	
Clearance Areas confirmed and completed	6,548	6,548	—	—	6,548	—	—	7,173	5,415	1,758	7,173	—	—	—	—
Oldham Road (Nowton Heath) II. .. .	8	7	1	—	6	2	—	8	6	1	7	—	1	1	—
	6,556	6,555	1	—	6,554	2	—	7,181	5,421	1,759	7,180	—	1	1	—
Clearance Areas confirmed but not completed—															
Miles Platting .. .	688	688	—	—	687	—	1	692	584	108	692	—	—	—	—
Broom Lane .. .	12	12	—	—	11	—	1	3	—	3	3	—	—	—	—
New Cross .. .	1,787	1,787	—	—	1,780	—	7	1,727	1,260	467	1,727	—	—	—	—
	2,487	2,487	—	—	2,478	—	9	2,422	1,844	578	2,422	—	—	—	—
Clearance Areas represented but not confirmed—															
Bradford Road .. .	1,841	529	48	1,264	472	29	1,340	1,948	104	436	540	49	1	50	1,358
St. George's .. .	1,183	376	26	781	336	31	816	1,179	66	267	333	24	6	30	816
Hutchins Street .. .	61	17	1	43	17	—	44	62	14	3	17	1	1	2	43
Harpurhey .. .	284	8	—	276	—	—	284	299	—	—	—	—	—	—	299
Monday Street .. .	45	18	2	25	17	2	26	70	9	18	27	1	3	4	39
Enoch Street .. .	31	—	—	31	—	—	31	32	—	—	—	—	—	—	32
Ruth Court .. .	11	7	—	4	7	—	4	14	—	10	10	—	—	—	4
Fog Lane .. .	10	1	—	9	—	—	10	9	—	—	—	—	—	—	9
Oldham Road (Now Cross) Areas 1 to 16 ..	786	156	16	614	103	22	661	844	25	107	132	15	2	17	695
	4,252	1,112	93	3,047	952	84	3,216	4,457	218	841	1,059	90	13	103	3,295
Clearance Areas inspected but not represented—															
St. John's .. .	615	218	4	393	170	5	440	671	21	161	182	3	1	4	485
Individual unfit houses not in clearance areas ..	1,442	1,140	258	44	1,054	246	142	1,470	1,010	125	1,135	247	34	281	54
Totals .. .	15,352	11,512	356	3,484	11,208	337	3,807	16,201	8,514	3,464	11,978	340	49	389	3,834
Houses dealt with as individual unfit houses—															
(a) Not in clearance areas .. .	1,442	1,140	258	44	1,054	246	142	1,470	1,010	125	1,135	247	34	281	54
(b) In clearance areas:															
Bradford Road .. .	175	120	48	7	116	29	30	169	106	6	112	49	1	50	7
St. George's .. .	97	68	25	4	61	25	11	103	67	6	73	24	2	26	4
Hutchins Street .. .	16	15	1	—	15	—	1	17	14	1	15	1	1	2	—
Oldham Road (Now Cross) .. .	40	24	16	—	16	20	4	43	21	5	26	15	2	17	—
St. John's .. .	30	25	4	1	19	7	4	32	22	4	26	3	1	4	2
Monday Street .. .	8	6	2	—	6	2	—	14	9	1	10	1	3	4	—
Totals .. .	1,808	1,398	354	56	1,287	329	192	1,848	1,249	148	1,397	340	44	384	67

REPORT OF THE NURSING ORGANISER.

The Nursing Office was established in 1945 in the Health Department, centred in Room 506, Third Floor, Town Hall Extension.

The office has been actively employed, during the past year, in all branches of the Nursing Profession pertaining to the Health Service. Incidentally, the work with the Hospital Service has not been entirely severed; advice and assistance are constantly being sought by both professional and lay personnel.

More than 1,036 applications have been made to the office; of these, 90 per cent. received appointments for personal interviews with the Nursing Organiser.

49 applicants, under 18 years of age, have attended by appointment for advice on nursing as a career, and how to "bridge-the-gap" in nursing.

24 have been referred to the Maternity and Child Welfare Section and interviewed for appointment as student nursery nurses.

22 others have been referred to cadet training, pre-student nursing, and to various sections of the Local Authority, including the School Medical Service, for positions as junior clerks, etc.

120 or more applications have been received from qualified personnel; State Registered Nurses, Registered Mental Nurses, Registered Sick Children's Nurses, Sister Tutors, etc. After preliminary examination these have been directed to various departments, such as Mental Health Service, for Mental Health Visitors, Whooping Cough Research and Epideminology, as Special Investigators, Tuberculosis Visitors, Health Visitors, Municipal Midwives, School Medical Service, etc.

10 have been referred to Home Nursing, holding the qualifications of Queen's Nurse; others have taken up the special training for the Home Nursing Service.

4 trained personnel with the National Diploma of Nursery Nurses have been directed to the Day Nursery Section, for senior appointment.

Many enquirers to the office are found employment outside the Health Department, as follows :—

40 of 18 years and over, have been advised with regard to general and mental training as student nurses, and have been referred to hospitals in Manchester and the immediate neighbourhood for entrance to the Nursing School.

6 ex-servicemen holding suitable qualifications have been assisted with their applications to the Ministry of Health for Intensive Training for State Registration.

Enquiries are also received on careers in Radiography, Physiotherapy, Occupational Therapy, Industrial Nursing, National Hospital Service Reserve, etc., and are advised regarding training schools in the Manchester area, contacts being made on their behalf.

The particular function of this office is well-known to many other authorities, who seek our professional advice on such matters as :—

Individual Scales of Salary and Superannuation.

Qualifications in engaging Personnel.

The Awarding of Scholarships, Bursaries, etc.

Post-Graduate Courses.

Educational Nursing Assistance.

224 applications have been made to the office for assistance in domestic crises, cases of sickness, accidents, etc., which cannot be dealt with under the Home Help Service. These have been assisted by recommendations to the Private Nurses' Homes, Nursing Agencies, and to members of the nursing profession who are willing to give part-time nursing relief.

The transfer of the Hospitals' and Civil Nursing Reserve to the Ministry of Health has not left us without a legacy of the good work of previous years. Members who served Manchester and the surrounding counties through the Local Authority, in those years, now request references, recommendations, and records of previous service. These requests have come from all parts of Great Britain, America, and the Continent.

Hospital Matrons and Sister Tutors request the assistance of the Nursing Office for the arrangement of educational visits for their nursing students to the Corporation Services :—

Sewage Disposal Works.
Air Conditioning Plants.
Central Library, etc.

Nursing exhibitions are still maintained at the Youth Employment Bureau, and the Nursing Appointments Office ; these are also on loan to Grammar and Secondary Schools for displays on careers.

The Pre-Nursing Course, a part-time course covering 2 years, set up with the assistance of the Health Department in 1945, continues ; the Nursing Organiser assists with the curriculum, including Educational Visits, etc.

It is interesting for you to know that we have received requests from the Children's Department for assistance in advising young girls who are anxious to make their career nursing.

7 with the assistance of this office, have been placed in training schools ; from reports received from their Matrons, they are giving every satisfaction.

The Nursing Organiser continues to represent the Health Department on the following bodies :—

Youth Employment Bureau.
Nursing Appointments Office, Ministry of Labour and National Service.
Film Council for the North-West.
East Lancs. Joint County Committee for the British Red Cross Society and Order of St. John of Jerusalem.
Industrial Nurses' Discussion Group.
Sister Tutor Section within the Manchester Branch of the Royal College of Nursing.
Manchester, Salford, and Stretford Secondary (Grammar) School for Girls Employment Committee.

Lectures have been given to Flixton Town Women's Guild and the British Red Cross Society.

As authorised by the Health Committee, City of Manchester, under the Nurses' Act of 1943, Visiting Officer of Nursing Co-operations, etc., visits with the Senior Assistant Medical Officer of Health have been carried out during the past year.

VENEREAL DISEASES.

Treatment of mothers and children for venereal diseases has continued at two maternity and child welfare centres by arrangement with Manchester Regional Hospital Board.

The total attendances during the year were 4,770, compared with 5,175 in the previous year.

New patients attending numbered 460, 155 fewer than in 1949; 55 of these cases were found to be suffering from one of the venereal diseases :—

Syphilis—males 2, females 42.

Gonorrhoea—males 0, females 11.

Penicillin treatment was given to 35 patients.

Follow-up of Defaulters.

A health visitor (not in uniform) follows-up defaulters from any clinic in the City when this is requested and the result of the visit is forwarded to the appropriate authority. Where necessary, repeated visits are made until attendance is achieved. Evening visits are essential for patients who are working.

In some instances the health visitor arranges to call for patients, or to meet them by appointment if they do not wish the health visitor to call at their homes, and the patients are then accompanied to the clinic. This is usually only necessary for a first visit, or with a nervous defaulter who is reluctant to return to the clinic for treatment after failing to keep appointments, or the plausible patient who repeatedly promises to attend but does not do so.

The total number of visits during the year was 426, including 30 evening visits, and comprises 96 primary and 330 subsequent visits.

Contact Tracing.

Every effort is made to get all contacts referred to the department, to attend a clinic.

Contact cases referred from various sources are often impossible to trace due to lack of information available. In many cases there is nothing more than a nickname and a vague personal description. Addresses when given often prove to be fictitious.

The following table shows particulars of work done during the year :—

	Syphilis		Gonorrhoea		*Other Conditions		Totals		Total
	M.	F.	M.	F.	M.	F.	M.	F.	
1. Number of patients on 1st January under treatment or observation	20	152	—	14	25	63	45	229	27
2. Number of patients removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	—	6	—	—	—	—	—	6	—
3. Number of patients dealt with for the first time during the year under report (exclusive of those under Item 4) suffering from :—									
(a) Syphilis, primary	—	—	—	—	—	—	—	—	—
(b) „ secondary	—	3	—	—	—	—	—	3	—
(c) „ latent in 1st year of infection †	—	1	—	—	—	—	—	1	—
(d) „ cardio-vascular*	—	—	—	—	—	—	—	—	—
(e) „ of the nervous system*	—	—	—	—	—	—	—	—	—
(f) „ all other late or latent stages*	1	33	—	—	—	—	1	33	3
(g) „ congenital (under 1 year)	—	—	—	—	—	—	—	—	—
(h) „ „ (over 1 year)	1	5	—	—	—	—	1	5	—
(i) Gonorrhoea	—	—	—	11	—	—	—	11	1
Other conditions { (j) Chancroid	—	—	—	—	—	—	—	—	—
(k) Lymphogranuloma inguinale	—	—	—	—	—	—	—	—	—
(l) Granuloma venereum	—	—	—	—	—	—	—	—	—
(m) Any other conditions requiring treatment	—	—	—	—	9	197	9	197	20
(n) Conditions not requiring treatment	—	—	—	—	73	126	73	126	19
(o) Conditions remaining undiagnosed at 31st December	—	—	—	—	—	—	—	—	—
4. Number of patients dealt with for the first time who have been transferred from other Centres (civil or Service) or from practitioners approved under Ministry of Health Circular 2226	—	10	—	—	—	—	—	10	1
Totals of Items 1, 2, 3 and 4	22	210	—	25	107	386	129	621	75
5. Number of patients suffering from syphilis and gonorrhoea discharged after completion of treatment and the final tests of cure, or who were diagnosed as "other conditions"	2	12	—	11	68	321	70	344	41
6. Number of patients suffering from :—									
(a) Syphilis who defaulted after completion of treatment, but before final discharge	—	4	—	—	—	—	—	4	—
(b) Gonorrhoea who defaulted before 3 months	—	—	—	2	—	—	—	2	—
(c) Gonorrhoea who defaulted after 3 months	—	—	—	2	—	—	—	2	—
7. Number of patients who ceased to attend before completion of treatment and were suffering from :—									
(a) Acquired syphilis of less than 1 year's duration	—	2	—	—	—	—	—	2	—
(b) Acquired syphilis of more than 1 year's duration	—	24	—	—	—	—	—	24	—
(c) Congenital syphilis (under 1 year)	—	—	—	—	—	—	—	—	—
(d) „ „ (over 1 year)	2	8	—	—	—	—	2	8	—
(e) Gonorrhoea	—	—	—	3	—	—	—	3	—
8. (b) Number of patients under treatment or observation known to have died :—									
(a) From syphilis	—	—	—	—	—	—	—	—	—
(b) From treatment	—	—	—	—	—	—	—	—	—
(c) From other causes	—	—	—	—	1	—	1	—	—
9. Number of patients transferred to other Centres or Institutions or to private practitioners	4	11	—	2	—	—	4	13	—
10. Number of patients remaining under treatment or observation on 31st December	14	149	—	5	38	65	52	219	23
Totals of Items 5, 6, 7, 8, 9, and 10	22	210	—	25	107	386	129	621	75
(These totals should agree with those of Items 1, 2, 3, and 4).									
11. Number of patients included in Item 7 who failed to complete one course of treatment of either penicillin or of arsenic and bismuth and were suffering from :—									
(a) Acquired syphilis of less than 1 year's duration	—	—	—	—	—	—	—	—	—
(b) Acquired syphilis of more than 1 year's duration	—	2	—	—	—	—	—	2	—
(c) Congenital syphilis of less than 1 year's duration	—	—	—	—	—	—	—	—	—
(d) Congenital syphilis of more than 1 year's duration	—	1	—	—	—	—	—	1	—

		Syphilis		Gonorrhoea		Other Conditions		Totals		
		M.	F.	M.	F.	M.	F.	M.	F.	Totals
2. Number of attendances :—										
(a) for individual attention by the medical officer(s)		230	2,747	—	150	449	1,194	679	4,091	4,770
(b) for intermediate treatment, e.g., dressings, etc.		—	—	—	—	—	—	—	—	—
Total attendances		230	2,747	—	150	449	1,194	679	4,091	4,770
		Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals
		M.	F.	M.	F.	M.	F.	M.	F.	
3. Number of patients suffering from congenital syphilis in Item 3 above classified according to age		—	—	1	1	—	—	—	4	1 5
		Microscopical				Serum		†† Cerebro-spinal fluid	Others	
		for Syphilis	for Gonorrhoea	Cultural		for Syphilis	for Gonorrhoea			
4. Pathological work :—										
(a) Number of specimens examined at, and by the Medical Officer of, the Treatment Centre		—	—	—	—	—	—	—	—	—
(b) Number of specimens from patients at the Treatment Centre sent to a pathological laboratory		—	1,021	—	—	992	168	—	—	—
		Syphilis (less than 1 year)		Syphilis (more than 1 year)		Gonorrhoea		Other Conditions		
		M.	F.	M.	F.	M.	F.	M.	F.	
5. Contacts attending for examination through the agency of :—										
(a) Patients		—	—	—	—	—	—	—	—	—
(b) Health visitor or Social Service worker...		—	—	—	—	—	—	—	—	—
Totals.. . . .		—	—	—	—	—	—	—	—	—

* In order to avoid duplication, patients with cardio-vascular syphilis who are also suffering from syphilis of the nervous and/or other systems should be recorded as suffering from cardio-vascular syphilis alone.

† "Syphilis, latent in first year of infection," applies to cases presenting no clinical sign of syphilis but considered (by blood tests, etc.) to have contracted this disease within the preceding 12 months.

†† The number of diagnostic lumbar punctures should be given, not the number of tests carried out.

HEALTH EDUCATION.

The three main objectives to be considered in the framing of programmes for health training of the public are :—

- (a) Formation of healthy habits.
- (b) Development of the right attitude of mind towards health.
- (c) Acquiring knowledge of the correct way of living.

It is very important that these should be conveyed to the ordinary person, and this is being done through the activities of the Health Visitors, Sanitary Inspectors and School Nurses, and by addressing youth clubs and guilds, followed by the distribution of booklets and leaflets.

Reviewing the past year's work in Health Education, there is an indication that the public interest is growing. The attendances at meetings of clubs, guilds and other organisations where health education is offered, is greater than in previous years and the kind of question asked shows that the people are taking an intelligent interest in the subject.

Several new booklets issued by the Central Council for Health Education are now being circulated by the Department. They have more detail than earlier issues and this tends to confirm the opinion that the public are capable of assimilating more knowledge of the subject.

Much good work is being done by the Welfare Centre Staffs by their talks and exhibitions to mothers.

Exhibition material has been loaned to day schools and industrial firms. Posters and pamphlets have been issued to office managements and catering establishments. Students attending the Training Course for Health Visitors have continued to make use of the health education literature. Various leaflets have been revised and the magazine " Better Health " continues in circulation.

Of the applications, 408 were cancelled by the persons concerned. 969 cases received attention—332 following confinement and 637 sick and aged ; of the latter, 289 received assistance full-time and 348 part-time, and of these 637 there were 73 instances when assistance was given upon more than one occasion in the same household. At the close of the year 104 cases were registered as requiring assistance in 1951.

The average time spent by the Helps on cases was three weeks.

Contributions towards the cost of the service are recovered from householders, assessed according to authorised scales of assessment which are based on the recommendations made by the Association of Municipal Corporations.

The following table indicates the distribution of cases assisted in 1950 throughout the various districts of the City and also the numbers of Helps residing in such districts :—

Districts	Type of case assisted		Total	Distribution of Helps at 31st Dec., 1950
	(a) Following confinement	(b) Sick and aged persons		
Didsbury, Fallowfield and Withington	54 (103)	109 (53)	163 (156)	6 (7)
Wythenshawe	62 (101)	73 (27)	135 (128)	7 (5)
Blackley, Moston, New Moston	50 (75)	70 (27)	120 (102)	4 (3)
Longsight, Levenshulme and Burnage	33 (60)	64 (39)	97 (99)	9 (10)
Ardwick, Abbey Hey and Gorton ..	12 (35)	74 (40)	86 (75)	8 (9)
Chorlton-cum-Hardy and Whalley Range	26 (42)	48 (22)	74 (64)	2 (4)
Moss Side and Rusholme	24 (30)	46 (28)	70 (58)	7 (7)
Clayton, Bradford and Openshaw ..	9 (17)	47 (32)	56 (49)	3 (6)
Chorlton-on-Medlock and Hulme ..	14 (27)	32 (22)	46 (49)	3 (4)
Miles Platting and Newton Heath ..	14 (26)	26 (15)	40 (41)	1 (1)
Ancoats, Collyhurst and Harpurhey..	10 (18)	29 (8)	39 (26)	2 (1)
Crumpsall	14 (23)	11 (10)	25 (33)	2 (—)
Cheetham	10 (12)	8 (15)	18 (27)	— (1)
Totals	332 (569)	637 (338)	969 (907)	54 (58)

NOTE.—Figures in parentheses relate to the previous year, 1949, and are included for purposes of comparison.

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B Population for calculating Birth-rates.
D Population for calculating Death-rates.

† From 1931 Rates for Maternal Mortality are based on Live and Still Births.

